

SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Monday, August 17, 2020	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Sunny, 72-79 °F Wind: WNW @ 0-3 mph	
LOCATION: New York, NY		TIME: 6:45 am – 3:30 pm	
BCP SITE ID: C231127		LANGAN REP. : Tyler Zorn Thomas Schiefer	
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)			
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 11 Tyler Zorn, Thomas Schiefer, Giuliana Frizzi, Paul McMahon – Langan Rohn Dixon, Jose Garcia – AARCO Environmental Services Corp.		
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:			
<p>Langan began implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1).</p> <p>Site Activities</p> <ul style="list-style-type: none"> • AARCO used a Geoprobe 7822 DT drill rig with 4- or 5-foot-long Macro-Core® samplers to advance three soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB26: Boring was advanced to refusal at about 6 feet below grade surface (bgs). Concrete was identified in the cutting shoe at the refusal depth. Five step-off borings were attempted around the original boring location. No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.20 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was identified with a Jerome J505 unit from 4 to 6 feet bgs. A maximum total mercury concentration of 18 parts per million (ppm) was identified with the Niton XL3t XRF (XRF) from 4 to 6 feet bgs. ○ Boring SB29: Boring was advanced to refusal at about 15 feet bgs. Three step-off borings were attempted around the original boring location. Petroleum-like odors, staining, and PID readings up to 162 ppm were observed from about 0 to 4 feet bgs. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the limit of detection (LOD). ○ Boring SB36: Boring was advanced to refusal at 5 feet bgs. Concrete was identified in the cutting shoe at the refusal depth. Five step-off borings were attempted around the original boring location. Petroleum-like odors, staining, and PID readings up to 50.1 ppm were observed from about 0 to 5 feet bgs. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD. 			
Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
		LANGAN	

SITE OBSERVATION REPORT

Material Tracking

- No material was imported to the site.
- No material was exported from the site.
- No investigation derived waste (i.e. soil cutting or groundwater) was generated during site activities.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB26: 0-2 feet bgs
 - SB29: 0-2, 2-4, and 13-15 feet bgs
 - SB36: 2-4 feet bgs
- The following sample depths were submitted for analysis of VOCs, SVOCs, and Part 375/TAL metals:
 - SB29: 7-9 feet bgs
- The following sample depths were submitted for analysis of total mercury:
 - SB26: 4-6 feet bgs
- One quality assurance/quality control soil sample (one equipment blank) was collected and submitted for analysis.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
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SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor. Due to a faulty charging cable and/or broken charging port, one of the Jerome J405 mercury vapor analyzer was malfunctioning. The NYSDEC was contacted and approved intrusive work without a Jerome J405 at the air monitoring station farthest from the work area (PM-2). The equipment provider was contacted to repair or replace the Jerome J405 mercury vapor analyzer and associated cables at the PM-2 air monitoring station.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.018	0.2	0.0
PM-2	0.025	0.1	NA
PM-3	0.021	0.0	0.0
PM-4	0.011	0.0	0.0
PM-5	0.010	0.8	0.0
PM-6	0.020	0.3	0.0
WZ-1	0.011	0.0	0.0

mg/m³ = milligrams per cubic meter
 ppm = parts per million
 µg/m³ = micrograms per cubic meter
 NA = Not Applicable

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.032	3.0	0.0
PM-2	0.033	1.6	NA
PM-3	0.043	0.1	0.0
PM-4	0.017	0.0	0.2
PM-5	0.012	1.1	0.0
PM-6	0.024	2.7	0.0
WZ-1	0.025	0.1	0.0

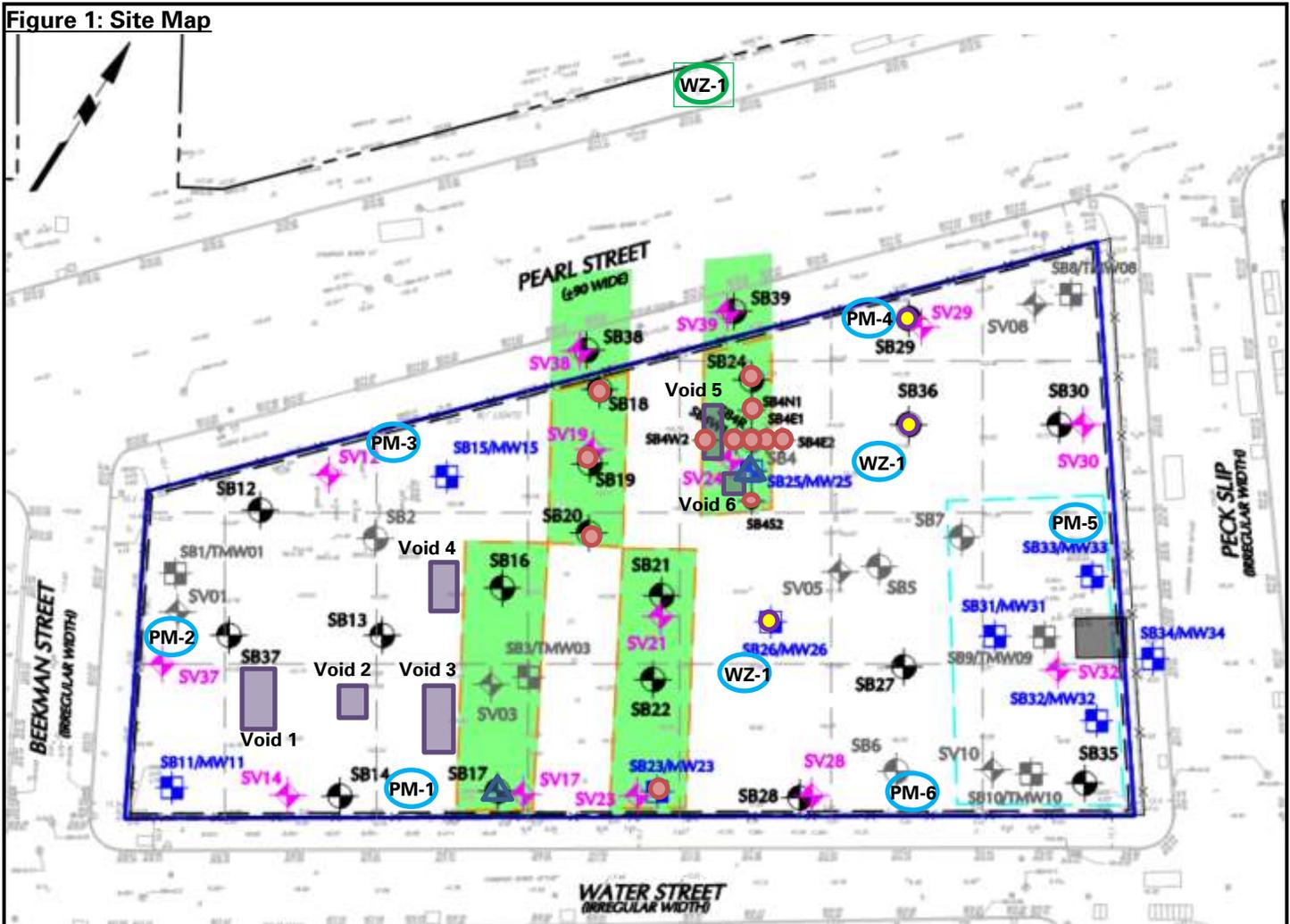
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells at the site.

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SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of soil borings advanced to refusal
- Approximate location of previously sampled soil borings
- ▲ Approximate location of completed soil borings and monitoring well

- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of work zone air monitoring station

Notes:

1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB29.



Photo 2: Perimeter CAMP station PM-4 and off-site CAMP station WZ-1 along Pearl Street during the drilling of boring SB29 (facing west).

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Photo 3: AARCO drilling boring SB36 (facing northwest).



Photo 4: AARCO drilling boring SB29 (facing north).

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			LANGAN

SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Tuesday, August 18, 2020	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Sunny, 66-84 °F Wind: WNW @ 0-7 mph	
LOCATION: New York, NY		TIME: 6:45 am – 3:45 pm	
BCP SITE ID: C231127		LANGAN REP. : Tyler Zorn Thomas Schiefer	
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Tyler Zorn Thomas Schiefer	
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX		PRESENT AT SITE: Tyler Zorn, Thomas Schiefer – Langan Rohn Dixon, Jose Garcia – AARCO Environmental Services Corp. RI Day 12	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:			
<p>Langan began implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1).</p> <p>Site Activities</p> <ul style="list-style-type: none"> • AARCO used a Geoprobe 7822 DT drill rig with 4- foot-long Macro-Core® samplers to advance five soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB13: Boring was advanced to 20 feet below grade surface (bgs). No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). ○ Boring SB16: Boring was advanced to refusal at about 12 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD. ○ Boring SB21: Boring was advanced to refusal at 11 feet bgs. Wood was identified in the cutting shoe at the refusal depth. Petroleum-like odors, staining, and PID readings up to 68.2 ppm were observed from about 6 to 8 feet bgs. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD. ○ Boring SB22: Boring was advanced to refusal at 10 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD. 			
Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
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SITE OBSERVATION REPORT

- Boring SB28: Boring was advanced to 20 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD.
- AARCO used a Geoprobe 7822 DT drill rig to install monitoring well MW28.
 - MW28 consists of a 2-inch diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 4 to 14 feet bgs. MW28 will be developed at a future date.
- All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt after sampling was completed

Material Tracking

- No material was imported to the site.
- No material was exported from the site.
- No investigation derived waste (i.e. soil cutting or groundwater) was generated during site activities.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB13: 0-2, 4-6, and 12-14 feet bgs
 - SB16: 0-2, 6-8, and 10-12 feet bgs
 - SB21: 0-2, 6-8, and 9-11 feet bgs
 - SB22: 0-2, 4-6, and 8-10 feet bgs
 - SB28: 0-2, 4-6, and 12-14 feet bgs
- The following sample depths were placed on hold for analysis of total mercury:
 - SB21: 4-6 feet bgs
 - SB22: 2-4 feet bgs
- Six quality assurance/quality control soil sample (a trip blank, equipment blank, field blank, duplicate, and MS/MSD) was collected and submitted for analysis.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
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SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

- The fifteen-minute average concentration of particulate matter smaller than 10 microns in diameter (PM10) exceeded action levels from 9:18 am to 9:33 am at air monitoring station PM-6. Air monitoring station PM-6 was being used as the work zone air monitoring station during this time because work was being conducted within 20 feet of the site boundary. Air monitoring station WZ-1 was located on the southern Water Street sidewalk. The fifteen-minute average concentration action level for PM10 was not exceeded at air monitoring station WZ-1. Work was stopped and the source of the exceedance was identified. The exceedance was caused by cutting asphalt to install a monitoring well cover for monitoring well MW28. Work resumed with increased dust suppression after the fifteen-minute average concentration at PM-6 dropped below the CAMP action level.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.016	0.0	0.0
PM-2	0.031	0.1	0.0
PM-3	0.017	0.0	0.0
PM-4	0.010	0.0	0.0
PM-5	0.010	0.8	0.0
PM-6	0.039	0.0	0.0
WZ-1	0.011	0.0	0.0

mg/m³ = milligrams per cubic meter

ppm = parts per million

µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.035	0.0	0.0
PM-2	0.106	0.2	0.0
PM-3	0.026	0.0	0.0
PM-4	0.014	0.0	0.0
PM-5	0.019	1.9	0.9
PM-6	0.526	0.0	0.1
WZ-1	0.034	0.0	0.2

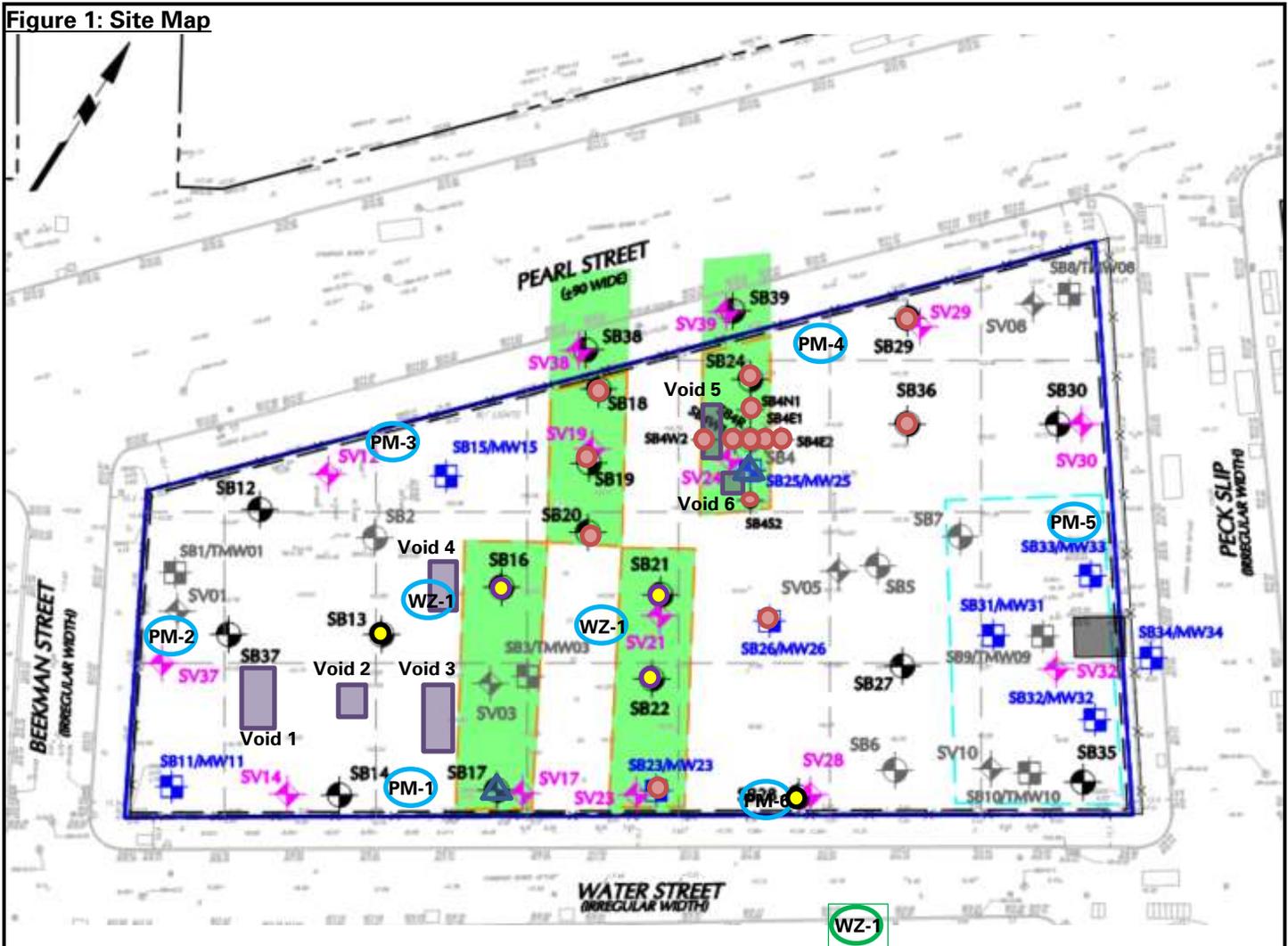
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells at the site.

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SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of soil borings advanced to refusal
- Approximate location of previously sampled soil borings
- Approximate location of completed soil borings and monitoring well
- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of work zone air monitoring station

Notes:

1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer LANGAN
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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB21.



Photo 2: Perimeter CAMP station PM-6 and off-site CAMP station WZ-1 along Water Street during the drilling of boring SB28 (facing east).

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			LANGAN

SITE OBSERVATION REPORT



Photo 3: AARCO drilling boring SB16 (facing east).



Photo 4: AARCO drilling boring SB22 (facing northeast).

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
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SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127	CLIENT: 250 Seaport District, LLC	DATE: Wednesday, August 19, 2020 WEATHER: Sunny, 66-72 °F Wind: 0.0 mph (10:28 am) to N @ 5.8 mph (9:48 am) TIME: 6:45 am – 16:45 pm
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Tyler Zorn Lexi Haley
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: Tyler Zorn, Lexi Haley – Langan Rohn Dixon, Alex Pothemont – AARCO Environmental Services Corp.	
RI Day 13		
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1). Site Activities <ul style="list-style-type: none"> • AARCO used a Geoprobe 7822 DT drill rig with 4-foot-long Macro-Core® samplers to advance three soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB11: Boring was advanced to 20 feet below grade surface (bgs). No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). ○ Boring SB14: Boring was advanced to 20 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. ○ Boring SB15: Boring was advanced to 20 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. • AARCO used a Geoprobe 7822 DT drill rig to install monitoring wells MW11 and MW15. <ul style="list-style-type: none"> ○ MW11 consists of a 2-inch-diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 12 to 22 feet bgs. MW11 will be developed at a future date. ○ MW15 consists of a 2-inch-diameter PVC monitoring well with 20-slot well screen from about 5 to 15 feet bgs. MW15 will be developed at a future date. • All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt after sampling was completed 		
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Tyler Zorn, Lexi Haley	LANGAN

SITE OBSERVATION REPORT

Material Tracking

- No material was imported to the site.
- No material was exported from the site.
- No investigation derived waste (i.e. soil cutting or groundwater) was generated during site activities.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB11: 0-2, 6-8, and 18-20 feet bgs
 - SB14: 0-2, 8-10, and 18-20 feet bgs
 - SB15: 0-2, 8-10, and 14-16 feet bgs
- Four quality assurance/quality control soil sample (a trip blank, equipment blank, field blank, and duplicate) was collected and submitted for analysis.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

- The fifteen-minute average concentration of particulate matter smaller than 10 microns in diameter (PM10) exceeded action levels from 14:38 am to 14:52 am at work zone air monitoring station. Intrusive work for the day was previously completed and the exceedance was caused by sweeping excess quick-dry cement used to set monitoring well covers. Housekeeping activities were stopped and the fifteen-minute average concentration dropped below the CAMP action level.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.017	0.3	0.0
PM-2	0.026	0.0	0.0
PM-3	0.022	0.0	0.0
PM-4	0.012	0.0	0.0
PM-5	0.014	0.5	0.0
PM-6	0.019	0.0	0.0
WZ-1	0.023	0.0	0.0

mg/m³ = milligrams per cubic meter
 ppm = parts per million
 µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.045	0.0	0.0
PM-2	0.040	0.0	0.0
PM-3	0.029	0.0	0.0
PM-4	0.017	0.0	0.0
PM-5	0.020	1.0	0.0
PM-6	0.038	0.4	0.0
WZ-1	0.206	0.0	0.1

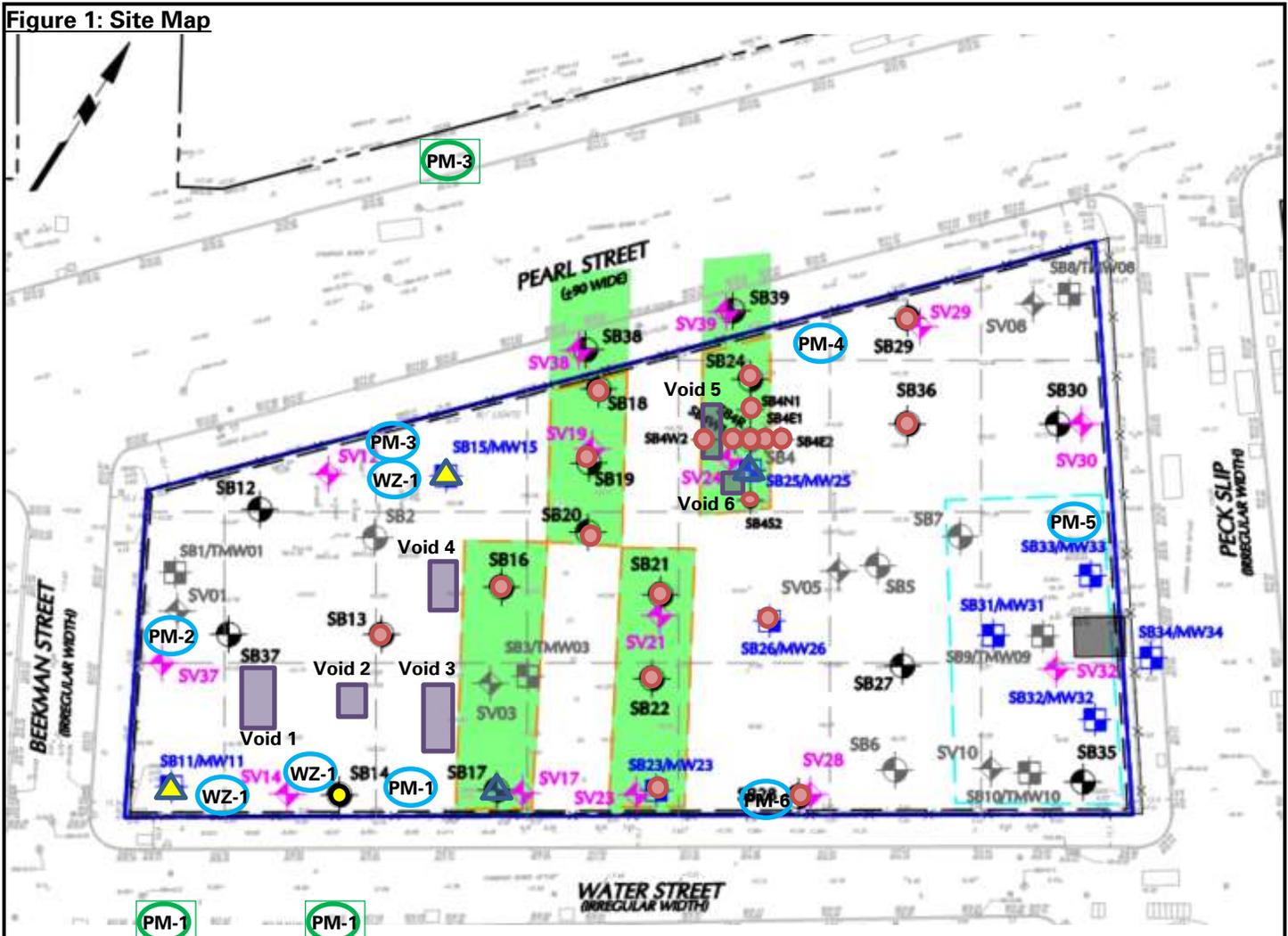
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells at the site.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of previously sampled soil borings
- ▲ Approximate location of completed soil borings and monitoring well
- ▲ Approximate location of previously completed soil borings and monitoring well
- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of work zone air monitoring station

Notes:

1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley LANGAN
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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB15.



Photo 2: Perimeter CAMP station WZ-1 and off-site CAMP station PM-1 along Water Street during the drilling of boring SB28 (facing east).

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT



Photo 3: AARCO drilling boring SB15 (facing northwest).



Photo 4: View of monitoring well MW11.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127	CLIENT: 250 Seaport District, LLC	DATE: Thursday, August 20, 2020 WEATHER: Sunny, 68-82 °F Wind: 0.0 mph (7:43 am) to NE @ 6.9 mph (10:13 am) TIME: 6:45 am – 16:15 pm
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Tyler Zorn Lexi Haley
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 14 Tyler Zorn, Lexi Haley – Langan Rohn Dixon, Alex Pothemont – AARCO Environmental Services Corp.	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1). Site Activities <ul style="list-style-type: none"> • AARCO used a Geoprobe 7822 DT drill rig with 4-foot-long Macro-Core® samplers to advance four soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB12: Boring was advanced to 20 feet below grade surface (bgs). No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). ○ Boring SB27: Boring was advanced to 24 feet bgs. Petroleum-like odors, staining, and PID readings up to 3.0 parts per million (ppm) were observed from about 18 to 20 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. ○ Boring SB30: Boring was advanced to 32 feet bgs. Petroleum-like odors, staining, and PID readings ranging from 1.4 to 15,000 ppm were observed from about 13 to 28 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. ○ Boring SB37: Boring was advanced to 20 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. • AARCO developed previously installed monitoring wells MW11, MW15, and MW28. • All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt after sampling was completed. 		
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Tyler Zorn, Lexi Haley LANGAN	

SITE OBSERVATION REPORT

Material Tracking

- No material was imported to the site.
- No material was exported from the site.
- Impacted soil cuttings from soil borings SB27 and SB30 and purged groundwater from monitoring wells MW11, MW15, and MW28 were containerized and sealed in 55-gallon drums. The drums were stored on-site for future off-site disposal.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB12: 1-3, 6-8, and 14-16 feet bgs
 - SB27: 0-2, 10-12, and 18-20 feet bgs
 - SB30: 0-2, 16-18, and 30-32 feet bgs
 - SB37: 2-4, 6-8, and 12-14 feet bgs
- The following sample depths were submitted for analysis of VOCs and SVOCs and Part 375/TAL Metals:
 - SB27: 20-22 feet bgs
- The following sample depths were submitted and placed on hold for analysis of mercury:
 - SB27: 2-4
- Three quality assurance/quality control soil samples (a trip blank, equipment blank, and field blank) were collected and submitted for analysis.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, VOCs, and particulate matter smaller than 10 microns in diameter (PM10) did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.008	0.0	0.0
PM-2	0.023	0.1	0.0
PM-3	0.008	0.0	0.0
PM-4	0.005	0.0	0.0
PM-5	0.005	0.4	0.0
PM-6	0.006	0.1	0.0
WZ-1	0.005	0.0	0.0

mg/m³ = milligrams per cubic meter
 ppm = parts per million
 µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.014	0.0	0.0
PM-2	0.030	0.2	0.0
PM-3	0.021	0.0	0.0
PM-4	0.010	0.0	0.3
PM-5	0.010	1.0	0.0
PM-6	0.010	0.8	0.0
WZ-1	0.018	0.0	0.0

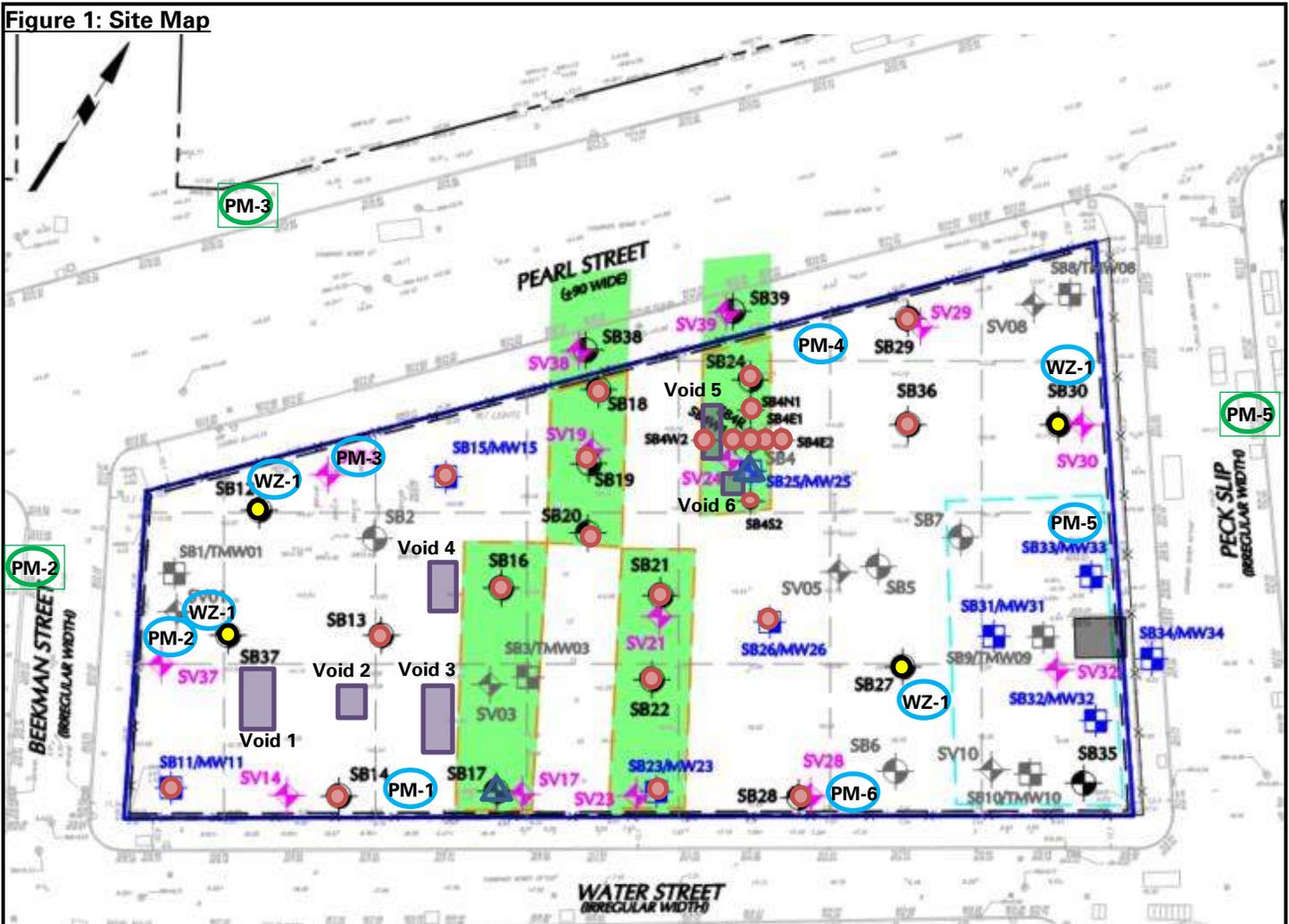
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells at the site.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of previously sampled soil borings
- ▲ Approximate location of completed soil borings and monitoring well
- ▲ Approximate location of previously completed soil borings and monitoring well
- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of work zone air monitoring station

Notes:

1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

Select Site Photographs:

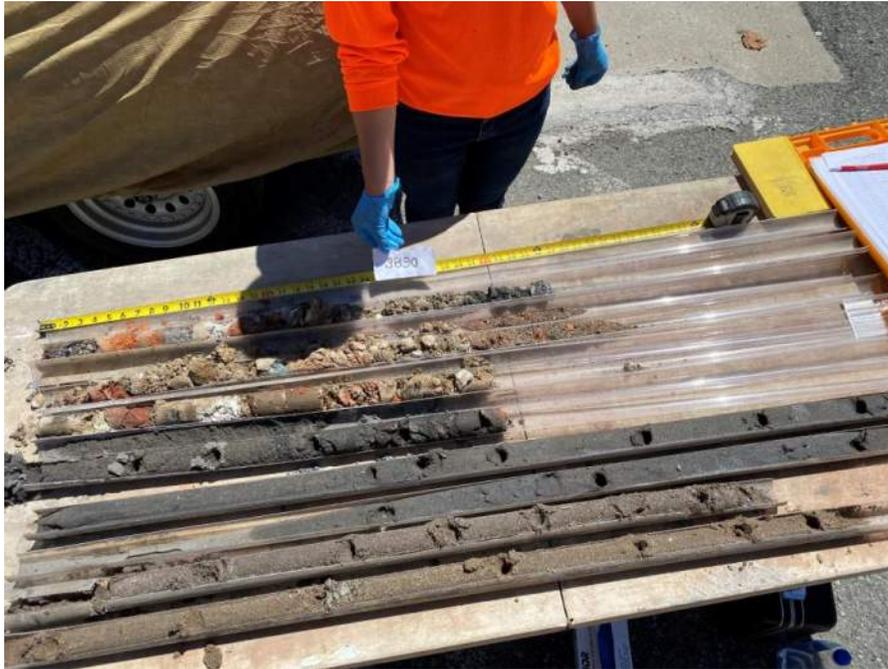


Photo 1: View of soil from boring SB30



Photo 2: Perimeter CAMP station WZ-1 and off-site CAMP station PM-2 along Beekman Street during the drilling of boring SB37 (facing southwest)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT



Photo 3: AARCO drilling boring SB30 (facing southeast)



Photo 4: AARCO developing monitoring well MW15 (facing north)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127	CLIENT: 250 Seaport District, LLC	DATE: Friday, August 21, 2020 WEATHER: Sunny, 69-82 °F Wind: SW @ 4.5 mph (3:13 pm) to N @ 10.1 mph (2:08 pm) TIME: 6:00 am – 17:00 pm
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Tyler Zorn Lexi Haley
EQUIPMENT: Geoprobe 7822 DT Hand Auger Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 15 Tyler Zorn, Lexi Haley – Langan Rohn Dixon, Alex Pothemont – AARCO Environmental Services Corp.	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1). Site Activities <ul style="list-style-type: none"> • AARCO used a Geoprobe 7822 DT drill rig with 4-foot-long Macro-Core® samplers to advance two soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB32: Boring was advanced to 28 feet below grade surface (bgs). Four step-off borings were attempted around the original boring location after refusal was encountered at the original boring location. Petroleum-like odors, staining, and photoionization detector (PID) readings up to 740.1 parts per million (ppm) were observed from about 10 to 22 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). ○ Boring SB33: Boring was advanced to 20 feet bgs. Petroleum-like odors, staining, and PID readings up to 6.6 ppm were observed from about 11 to 16 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. • AARCO installed monitoring wells MW33 and MW32. • AARCO attempted to advance off-site soil boring SB34/MW34 using a hand auger but encountered refusal. Two additional step-off borings were attempted around the original boring location. Concrete or utility piping was encountered at the refusal depths. • All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt or concrete after sampling was completed. Material Tracking <ul style="list-style-type: none"> • No material was imported to the site. 		
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Tyler Zorn, Lexi Haley LANGAN	

SITE OBSERVATION REPORT

- No material was exported from the site.
- Impacted soil cuttings from soil borings SB32 and SB33 were containerized in sealed 55-gallon drums. The drums were stored on-site for future off-site disposal.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB32: 0-2, 11-13, and 18-20 feet bgs
 - SB33: 0-2, 14-16, and 26-28 feet bgs
- The following sample depths were submitted and placed on hold for analysis of mercury:
 - SB33: 6-8 feet bgs
- Three quality assurance/quality control soil samples (a trip blank, equipment blank, and field blanks) were collected and submitted for analysis.

Soil samples were collected and relinquished to Alpha Analytical Labs, a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Mahwah, New Jersey (ELAP No. 11148) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of Total petroleum hydrocarbon (TPH) diesel range organics (DRO) and gasoline range organics (GRO), nitrite, nitrate, ammonia, sulfate, phosphate, iron and manganese, total organic carbon (TOC), chemical oxygen demand (COD), biological oxygen demand (BOD), and alkalinity:
 - SB32: 14-16 feet bgs
 - SB32: 26-28 feet bgs

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, VOCs, and particulate matter smaller than 10 microns in diameter (PM10) did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.018	0.0	0.0
PM-2	0.032	0.0	0.0
PM-3	0.019	0.0	0.0
PM-4	0.011	0.2	0.0
PM-5	0.014	0.3	0.0
PM-6	0.014	0.6	0.0
WZ-1	0.010	0.0	0.0

mg/m³ = milligrams per cubic meter

ppm = parts per million

µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.031	0.0	0.0
PM-2	0.045	0.0	0.0
PM-3	0.040	0.0	0.0
PM-4	0.013	2.4	0.0
PM-5	0.024	0.6	0.1
PM-6	0.021	1.7	0.0
WZ-1	0.025	0.0	0.0

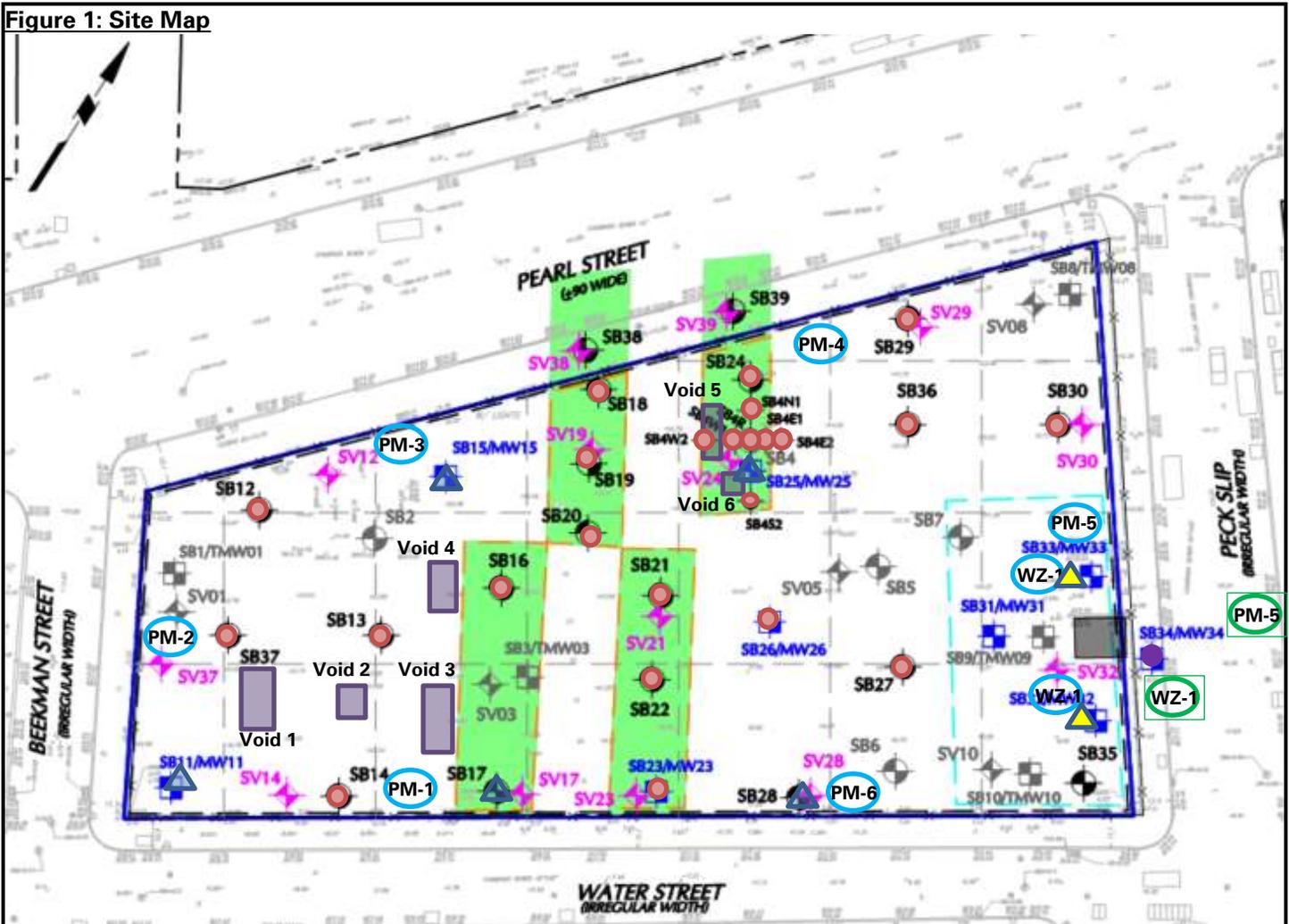
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells at the site.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of soil borings advanced to refusal
- Approximate location of previously sampled soil borings
- ▲ Approximate location of completed soil borings and monitoring well
- ▲ Approximate location of previously completed soil borings and monitoring well
- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of work zone air monitoring station

Notes:

- 1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB33



Photo 2: Perimeter CAMP station WZ-1 and off-site CAMP station PM-5 along Peck Slip during the attempted drilling of boring SB34 (facing northeast)

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Tyler Zorn, Lexi Haley

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SITE OBSERVATION REPORT



Photo 3: AARCO drilling boring SB32 (facing southeast)

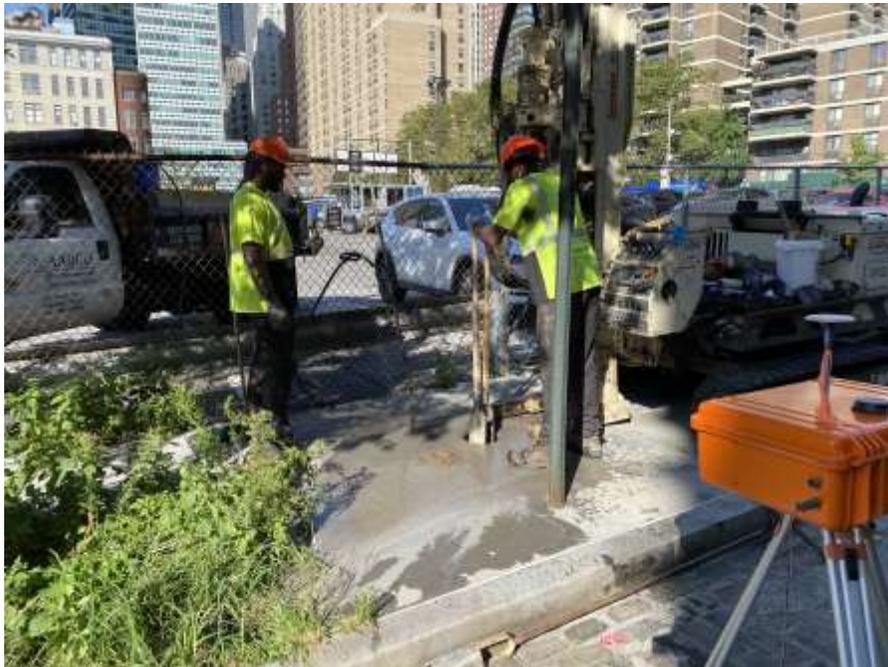


Photo 4: AARCO attempting to hand clear boring SB34 (facing west)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Monday, August 24, 2020	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Sunny, 80-89 °F Wind: 0 mph to SW @ 6.9 mph (3:09 pm)	
LOCATION: New York, NY		TIME: 6:00 am – 16:45 pm	
BCP SITE ID: C231127			
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Tyler Zorn Lexi Haley	
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX		PRESENT AT SITE: Tyler Zorn, Lexi Haley – Langan Rohn Dixon, Alex Pothemont – AARCO Environmental Services Corp.	
RI Day 16			
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:			
<p>Langan continued implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1).</p> <p>Site Activities</p> <ul style="list-style-type: none"> • AARCO used an AMS Power Probe 9580-VT drill rig with 4-foot-long Macro-Core® samplers to advance three soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB26: Boring was advanced to 20 feet below grade surface (bgs). No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). ○ Boring SB31: Boring was advanced to refusal at 32 feet bgs. Petroleum-like odors, staining, and PID readings up to 1,202 parts per million (ppm) were observed from about 10 to 24 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. ○ Boring SB36: Boring was advanced to 24 feet bgs. Petroleum-like odors, staining, and PID readings up to 26.2 ppm were observed from about 2 to 6 feet and 16 to 20 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. • AARCO installed monitoring wells MW26 and MW31. <ul style="list-style-type: none"> ○ MW26 consists of a 2-inch-diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 11 to 21 feet bgs. MW26 will be developed at a future date. ○ MW31 consists of a 2-inch-diameter PVC monitoring well with 20-slot well screen from about 8 to 18 feet bgs. MW31 will be developed at a future date. 			
Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
		LANGAN	

SITE OBSERVATION REPORT

- All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt or concrete after sampling was completed.

Material Tracking

- No material was imported to the site.
- No material was exported from the site.
- Impacted soil cuttings from soil borings SB31 and SB36 were containerized in sealed 55-gallon drums. The drums were stored on-site for future off-site disposal.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB26: 0-2, 6-8, and 13-15 feet bgs
 - SB31: 0-2, 18-20, and 26-28 feet bgs
 - SB36: 0-2, 16-18, and 30-32 feet bgs
- The following sample depths were submitted and placed on hold for analysis of mercury:
 - SB36: 2-4 feet bgs
- Three quality assurance/quality control soil samples (a trip blank, equipment blank, and a duplicate) were collected and submitted for analysis.

Soil samples were collected and relinquished to Alpha Analytical Labs, a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Mahwah, New Jersey (ELAP No. 11148) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of Total petroleum hydrocarbon (TPH) diesel range organics (DRO) and gasoline range organics (GRO), nitrite, nitrate, ammonia, sulfate, phosphate, iron and manganese, total organic carbon (TOC), chemical oxygen demand (COD), biological oxygen demand (BOD), and alkalinity:
 - SB31: 18-20 and 30-32 feet bgs

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

- The fifteen-minute average concentration of particulate matter smaller than 10 microns in diameter (PM10) exceeded action levels from 12:09 pm to 12:23 pm at the work zone air monitoring station. The fifteen-minute average concentration action level for PM10 was not exceeded at any perimeter air monitoring station. Work was stopped and the source of the exceedance was identified. The exceedance was caused by cutting asphalt to install a monitoring well cover for monitoring well MW26. Work was resumed with increased dust suppression after the fifteen-minute average concentration at work zone dropped below the CAMP action level.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.016	0.0	0.0
PM-2	0.032	0.0	0.1
PM-3	0.017	0.0	0.0
PM-4	0.013	0.5	0.0
PM-5	0.011	0.6	0.0
PM-6	0.012	0.0	0.0
WZ-1	0.015	0.0	0.0

mg/m³ = milligrams per cubic meter

ppm = parts per million

µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.027	0.0	0.0
PM-2	0.049	0.0	0.3
PM-3	0.035	0.0	0.2
PM-4	0.024	3.8	0.0
PM-5	0.024	0.9	0.0
PM-6	0.030	0.6	0.0
WZ-1	0.203	0.0	0.0

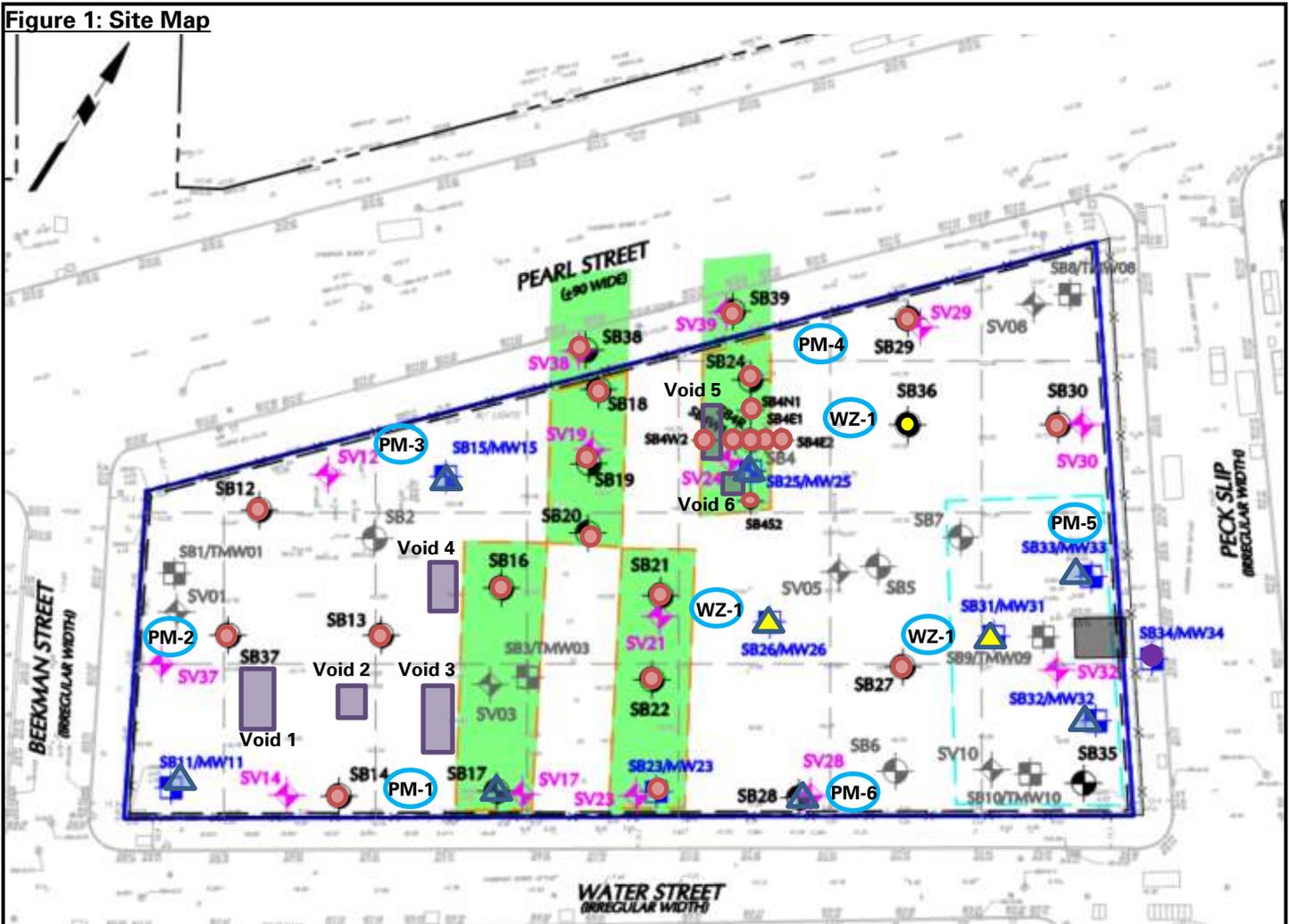
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells at the site.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

-  Site Boundary
-  Approximate area of suspected void space
-  Approximate location of soil borings sampled
-  Approximate location of soil borings previously advanced to refusal
-  Approximate location of previously sampled soil borings
-  Approximate location of completed soil borings and monitoring well
-  Approximate location of previously completed soil borings and monitoring well
-  PM-1 Approximate location of air monitoring station (on-site)
-  PM-1 Approximate location of air monitoring station (off-site)
-  WZ-1 Approximate locations of work zone air monitoring station

Notes:

- 1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Tyler Zorn, Lexi Haley

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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB36



Photo 2: CAMP station WZ-1 and perimeter CAMP station PM-4 along Pearl Street during the drilling of boring SB36 (facing northwest)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT



Photo 3: AARCO drilling boring SB26 (facing southeast)



Photo 4: View of installed MW26 (facing southwest)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127	CLIENT: 250 Seaport District, LLC	DATE: Tuesday, August 25, 2020 WEATHER: Sunny, 75-88 °F Wind: 0 mph to W @ 9.2 mph (1:05 pm) TIME: 5:45 am – 15:45 pm
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Tyler Zorn Lexi Haley
EQUIPMENT: AMS Power Probe 9580-VTR Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 17 Tyler Zorn, Lexi Haley – Langan Rohn Dixon, Alex Pothemont – AARCO Environmental Services Corp.	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1). Site Activities <ul style="list-style-type: none"> • AARCO used an AMS Power Probe 9580-VTR drill rig with 4-foot-long Macro-Core® samplers to advance two soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB34: Boring was advanced to 20 feet below grade surface (bgs). A void space was encountered from 0 to 4 feet bgs. Petroleum-like odors, staining, and PID readings up to 4.2 parts per million (ppm) were observed from about 11 to 16 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). ○ Boring SB35: Boring was advanced to refusal at 28 feet bgs. Petroleum-like and creosote-like odors, staining, and PID readings up to 21.0 ppm were observed from about 9 to 24 feet bgs. Visual evidence of elemental mercury was not identified. Total mercury concentrations evaluated with the XRF were less than the LOD. • AARCO installed monitoring well MW34. <ul style="list-style-type: none"> ○ MW34 consists of a 2-inch-diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 9 to 19 feet bgs. MW34 will be developed at a future date. • All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt or concrete after sampling was completed. Material Tracking <ul style="list-style-type: none"> • No material was imported to the site. • No material was exported from the site. 		
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Tyler Zorn, Lexi Haley LANGAN	

SITE OBSERVATION REPORT

- Impacted soil cuttings from soil borings SB34 were containerized in sealed 55-gallon drums. The drums were stored on-site for future off-site disposal.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB34: 4-6, 10-12, and 12-14 feet bgs
 - SB35: 0-2, 8-10, and 26-28 feet bgs
- The following sample depths were submitted for analysis of VOCs, SVOCs, and Part 375/TAL metals:
 - SB34: 18-20 feet bgs
- One quality assurance/quality control soil samples (an equipment blank) was collected and submitted for analysis.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of particulate matter smaller than 10 microns in diameter (PM10), mercury vapor, and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.026	0.0	0.0
PM-2	0.035	0.0	0.0
PM-3	0.032	0.0	0.0
PM-4	0.018	0.0	0.0
PM-5	0.022	0.6	0.0
PM-6	0.024	0.0	0.0
WZ-1	0.023	0.0	0.0

mg/m³ = milligrams per cubic meter
 ppm = parts per million
 µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.035	0.0	0.0
PM-2	0.050	0.0	0.0
PM-3	0.039	0.0	0.0
PM-4	0.025	0.0	0.1
PM-5	0.029	1.4	0.0
PM-6	0.030	0.0	0.0
WZ-1	0.062	0.0	0.0

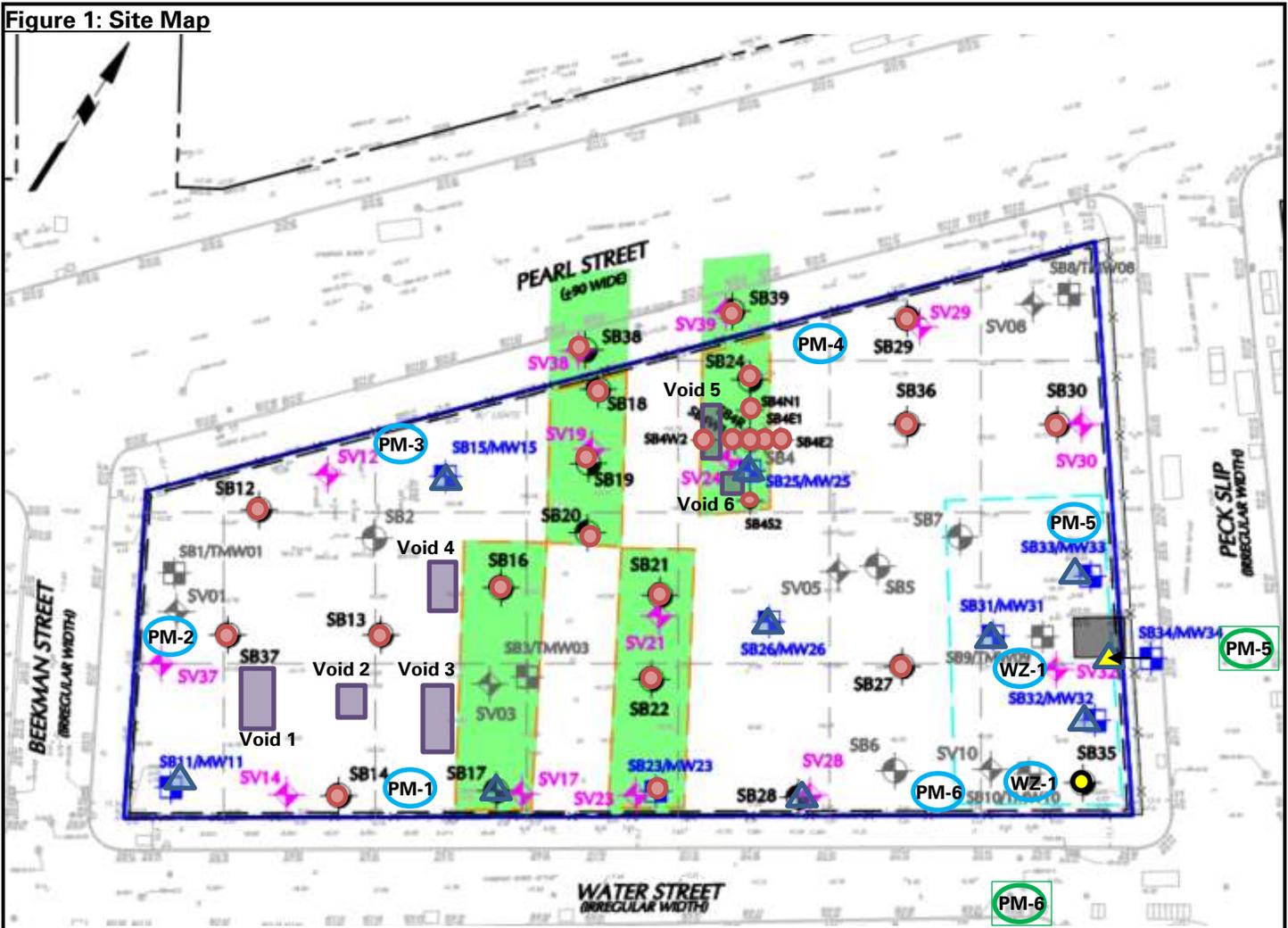
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and develop monitoring wells at the site.

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SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

-  Site Boundary
-  Approximate area of suspected void space
-  Approximate location of soil borings sampled
-  Approximate location of previously sampled soil borings
-  Approximate location of completed soil borings and monitoring well
-  Approximate location of previously completed soil borings and monitoring well
-  PM-1 Approximate location of air monitoring station (on-site)
-  PM-1 Approximate location of air monitoring station (off-site)
-  WZ-1 Approximate locations of work zone air monitoring station

Notes:

1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB35



Photo 2: Perimeter CAMP station WZ-1 and off-site CAMP station PM-6 along Water Street during the drilling of boring SB35 (facing southeast)

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SITE OBSERVATION REPORT



Photo 3: AARCO drilling boring SB34 (facing east)



Photo 4: AARCO troubleshooting drill rig track (facing north)

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SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127	CLIENT: 250 Seaport District, LLC	DATE: Wednesday, August 26, 2020 WEATHER: Sunny, 70-82 °F Wind: NW @ 3.5 mph (7:51 am) to WNW @ 10.4 mph (12:07 pm) TIME: 5:45 am – 15:00 pm
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Tyler Zorn Lexi Haley
EQUIPMENT: AMS Power Probe 9580-VTR Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 18 Tyler Zorn, Lexi Haley – Langan Rohn Dixon, Alex Pothemont – AARCO Environmental Services Corp.	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1). Site Activities <ul style="list-style-type: none"> • AARCO used an AMS Power Probe 9580-VTR drill rig with 4-foot-long Macro-Core® samplers to advance seven additional soil borings requested by the NYSDEC. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> ○ Boring SB4N3: Boring was advanced to 12 feet below grade surface (bgs). No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. ○ Boring SB4NE3: Boring was advanced to 16 feet bgs. Petroleum-like odors, staining, and PID readings up to 9.2 ppm were observed from about 12 to 14 feet bgs. Visual evidence of elemental mercury was not identified. ○ Boring SB4SE3: Boring was advanced to 16 feet bgs. Petroleum-like odors, staining, and PID readings up to 218.0 parts per million (ppm) were observed from about 12 to 16 feet bgs. Visual evidence of elemental mercury was not identified. ○ Boring SB4S3: Boring was advanced to 16 feet bgs. Petroleum-like odors, staining, and PID readings up to 102.8 ppm were observed from about 14 to 16 feet bgs. Visual evidence of elemental mercury was not identified. ○ Boring SB4SW3: Boring was advanced to 12 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. ○ Boring SB4W3: Boring was advanced to 12 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. ○ Boring SB4NW3: Boring was advanced to 16 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. 		
Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Tyler Zorn, Lexi Haley LANGAN

SITE OBSERVATION REPORT

- AARCO installed monitoring well MW30.
 - MW30 consists of a 2-inch-diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 9 to 19 feet bgs. MW34 was developed after installation.
- AARCO developed monitoring wells MW26, MW30, MW31, MW32, MW33, and MW34.
- All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt or concrete after sampling was completed.

Material Tracking

- No material was imported to the site.
- No material was exported from the site.
- Impacted soil cuttings from soil borings SB4NE3, SB4SE3, and SB4S3 were containerized in sealed 55-gallon drums. The drums were stored on-site for future off-site disposal.

Sampling

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for total mercury
 - SB4N3: 0-2, 2-3, 6-8, 9-10, and 10-12 feet bgs
 - SB4NE3: 0-2, 2-4, 5-6, 6-8, 9-10, 10-12, 13-14, and 14-16 feet bgs
 - SB4SE3: 0-2, 2-4, 4-6, 6-8, 8-10, 10-12, 12-14, and 14-16 feet bgs
 - SB4S3: 0-2, 2-3, 5-6, 6-8, 8-10, 10-12, 13-14, and 14-16 feet bgs
 - SB4SW3: 0-2, 2-3, 4-6, 6-8, 8-10, and 10-12 feet bgs
 - SB4W3: 0-2, 2-4, 4-6, 6-8, 8-10, and 10-12 feet bgs
 - SB4NW3: 0-2, 2-3, 4-6, 6-8, 9-10, 10-12, 12-14, and 14-16 feet bgs
- The following sample depths were submitted and placed on hold for analysis of TCLP mercury:
 - SB4N3: 2-3 feet bgs
 - SB4NE3: 2-4 feet bgs
 - SB4SE3: 2-4 feet bgs
 - SB4S3: 2-3 feet bgs
 - SB4SW3: 2-3 feet bgs
 - SB4W3: 2-4 feet bgs
 - SB4NW3: 2-3 feet bgs
- Twelve quality assurance/quality control soil samples (three field blanks, three MS/MSD, and three duplicates) were collected and submitted for analysis.

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			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of particulate matter smaller than 10 microns in diameter (PM10), mercury vapor, and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.005	0.0	0.0
PM-2	0.016	0.0	0.0
PM-3	0.005	0.0	0.0
PM-4	0.004	1.1	0.0
PM-5	0.004	0.6	0.0
PM-6	0.000	0.0	0.0
WZ-1	0.001	0.0	0.0

mg/m³ = milligrams per cubic meter
 ppm = parts per million
 µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.007	0.0	0.0
PM-2	0.024	0.0	0.0
PM-3	0.009	0.0	0.0
PM-4	0.015	2.4	0.2
PM-5	0.009	1.0	0.0
PM-6	0.006	0.0	0.0
WZ-1	0.006	0.2	0.0

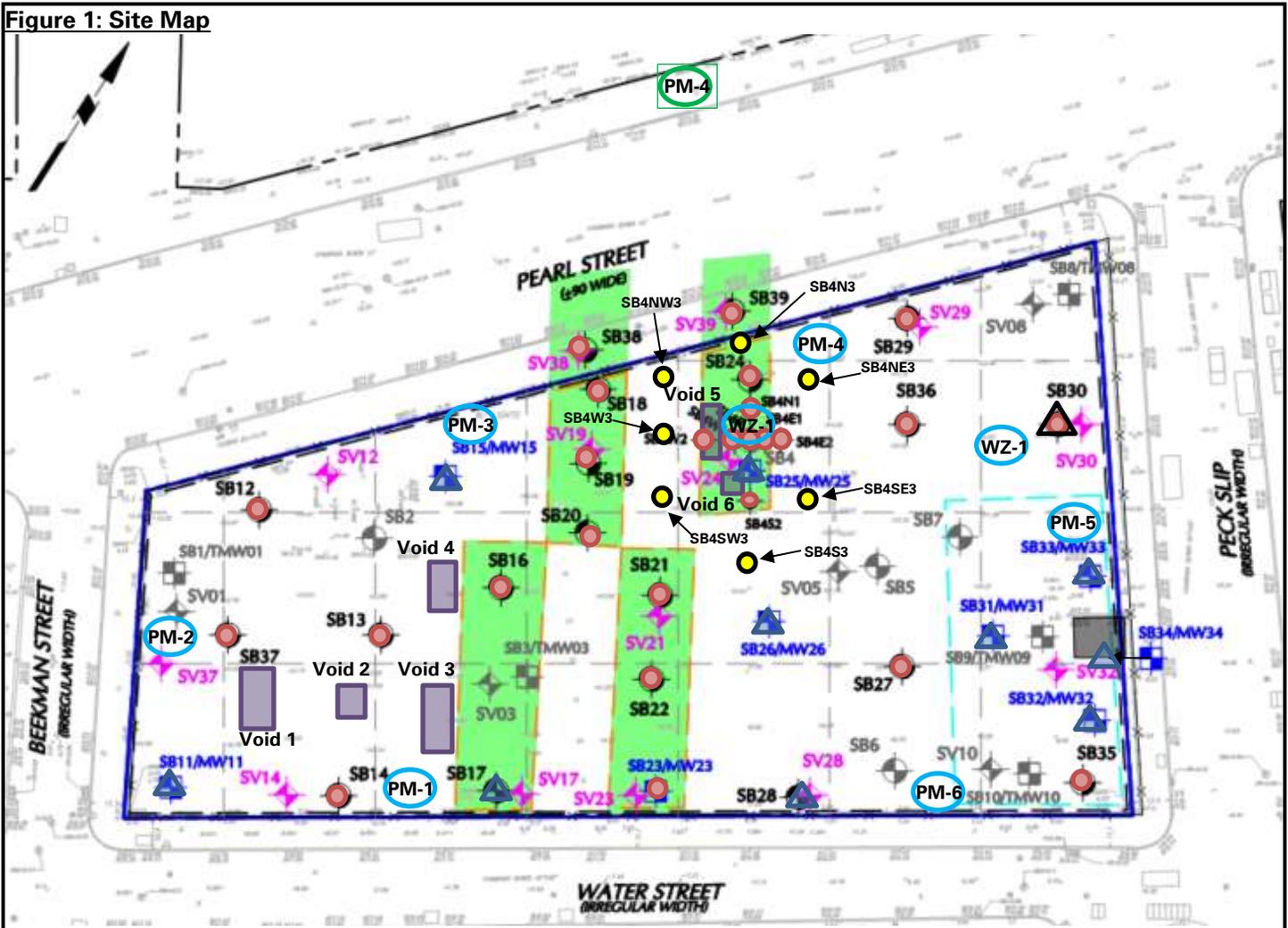
Anticipated Activities

- Phase 5 of the RIWP (groundwater sampling) is anticipated to be begin on August 31, 2020.

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			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB4SE3



Photo 2: Perimeter CAMP station WZ-1 and off-site CAMP station PM-4 along Pearl Street during the drilling of boring SB4N3 (facing north)

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			LANGAN

SITE OBSERVATION REPORT



Photo 3: AARCO drilling boring SB4W3 (facing southwest)

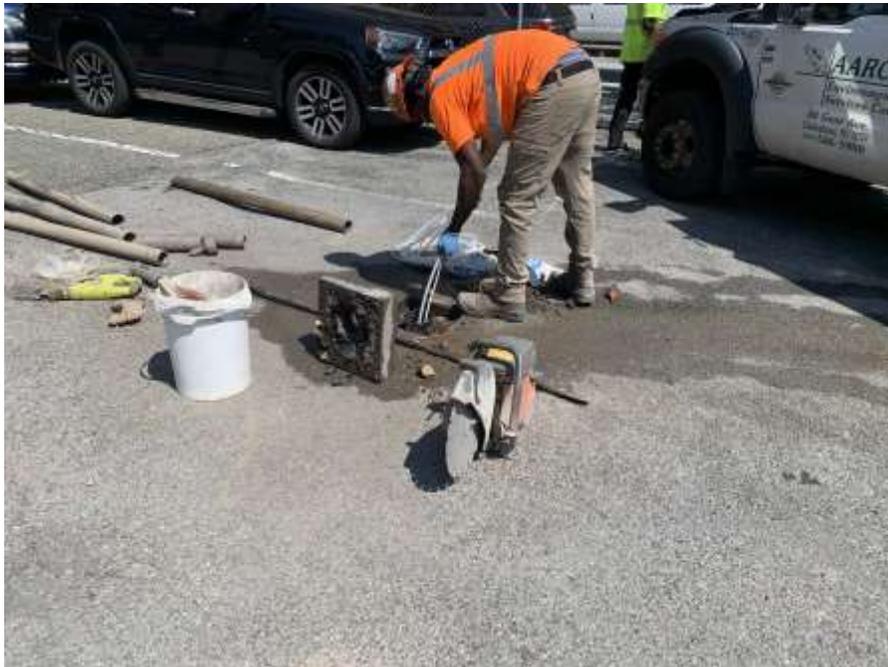


Photo 4: AARCO developing monitoring well MW30 (facing north)

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			LANGAN