Day 26



### SITE OBSERVATION REPORT

**PROJECT No.**: 170381202

CLIENT:

250 Seaport District, LLC

PRESENT AT SITE:

DATE:

Saturday, June 11, 2022

PROJECT:

250 Water Street

c/o The Howard Hughes
Corporation

WEATHER: \,

Partly Cloudy, 71.6 – 77.0 °F Wind: NNE @ 0.6 – 4.8 mph

**LOCATION:** New York, NY

TIME:

6:45 AM - 4:30 PM

**BCP SITE ID**: C231127

MONITOR:

Langan (Environmental/Geotechnical) - Elsah Boak, Maitland Robinson, Tom

Elsah Boak, Maitland Robinson,

" Tom Herold

**EQUIPMENT:** 

MiniRAE 3000 PID

DustTrak II Jerome J405® Jerome J505® Hand tools CAT 374F

Herold **LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Joe Pastore AARCO Environmental Services Corp. (AARCO) (Drilling Contractor) – Jose

Garcia

Komatsu 969

APE Model 150 Geoprobe® 7822 DT

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation and construction activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- CCJV installed a test displacement pile to approximately 37 feet below grade surface (bgs) to evaluate the procedure for future installation of soldier piles along the perimeter of the site. No spoils were generated during installation of the test pile. CCJV covered the test pile with polyethylene sheeting following installation.
- AARCO used a Geoprobe® 7822DT direct-push drill rig with 4- and 5-foot-long Marco-Core® samplers to advance 13 soil borings to facilitate off-site disposal of soil/fill in the eastern part of the site. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples:
  - Soil borings SB04, SB04N1, SB04W2, SB04S2, SB04S3, SB24 and SB25 were advanced to depths
    ranging from 8 to 16 feet bgs. Material was screened for odors, staining and organic vapors using a
    photoionization detector (PID). No evidence of impacts were observed
  - o Soil borings **SB36SW4 and SB36SE4** were advanced to a depth of about 4 feet bgs. Material was screened for odors, staining and organic vapors using a PID. No evidence of impacts were observed.
  - Soil borings WC10A, WC10B, WC10C and WC10D were advanced to a depth of about 15 feet bgs. Material was screened for odors, staining and organic vapors using a PID. Black staining, odors, and a maximum PID reading of 1,004.0 parts per million (ppm) (in soil boring WC10D) were recorded at depths ranging from 5 to 15 feet bgs.
  - o Soil borings were backfilled with clean drill cuttings or clean sand and patched with cold patch asphalt after sampling was completed. Impacted drill cuttings were containerized in one labeled and sealed 55-gallon steel drum, staged in the northwestern part of the site for future off-site disposal.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 2 of 7

### SITE OBSERVATION REPORT

### Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary					
Facility Name Location Type of Material	Ha	ndustries, Inc. ledon, NJ ich Virgin Stone	Ha	ndustries, Inc. ledon, NJ h Virgin Stone	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	
Total	7	161.51	0	0	
NYSDEC Approved:		1,000 cubic	yards (CY)		

Material Export Summary					
Facility Name Location Type of Material	Bro Con	co Recycling ooklyn, NY struction & on (C&D) Debris	Ko Hazardou	h of North Jersey earny, NJ is Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	
Today	0	0	0	0	
Total	2	25	14	280	

# **Sampling Activities**

- Langan collected 28 grab soil samples for laboratory analysis of total and toxicity characteristic leaching
  procedure (TCLP) mercury, NYSDEC/target compound list (TCL) volatile organic compounds (VOCs), New Jersey
  Department of Environmental Protection (NJDEP) extractable petroleum hydrocarbons (EPH), total petroleum
  hydrocarbons (TPH) and/or total organic halides (TOX).
  - An additional 23 grab soil samples were collected and placed on hold with the laboratory for potential analysis of total and TCLP mercury, pending receipt of the initial laboratory report.
- Langan collected six composite soil samples for laboratory analysis of TCLP semivolatile organic compounds (SVOCs) and/or polychlorinated biphenyls (PCBs).
- Samples were relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak



Page 3 of 7

### SITE OBSERVATION REPORT

## **CAMP** Activities

Langan performed air monitoring at the perimeter of the site and at the work zone at seven locations for particulate matter less than 10 microns in diameter (PM10), VOCs, and mercury vapor, during ground-intrusive activities. Fifteenminute average concentrations of PM10, VOCs, and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 μg/m³ to 0.04 μg/m³.
- Background concentrations of VOCs at each CAMP station ranged from 0.0 to 0.1 ppm.

### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

		age comcommuner	
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.016	0.0	0.0
PM-2	0.013	0.0	0.0
PM-3	0.009	0.0	0.0
PM-4	0.013	0.0	0.0
PM-5	0.020	0.0	0.1
PM-6	0.016	0.0	0.0
WZ-1	0.020	0.0	0.0

### **Maximum 15-Minute-Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.034	0.1	0.1
PM-2	0.022	0.0	0.0
PM-3	0.015	0.1	0.0
PM-4	0.021	0.0	0.0
PM-5	0.027	0.0	0.4
PM-6	0.023	0.0	0.0
WZ-1	0.028	0.0	0.2

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

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- Langan used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site.
  - o Raw data from the Jerome® J505 mercury vapor analyzer will be downloaded on Tuesday, June 14, 2022. Instantaneous mercury vapor concentrations throughout the site were not detected at concentrations above background conditions for the duration of the work day.
- Langan used a handheld PID to monitor VOC concentrations throughout the site.
  - o VOC concentrations were not detected above background concentrations throughout the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 4 of 7

### SITE OBSERVATION REPORT

### Off-Site CAMP Station Relocation

- Perimeter air monitoring station PM-5 was relocated to the northern sidewalk of Pearl Street from 7:51am to 9:13am during advancement of soil boring SB24.
- Perimeter air monitoring station PM-4 was relocated to the eastern sidewalk of Peck Slip from 10:59am to 11:31am during advancement of soil boring WC10D.

### Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued at 1:17pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station were recorded at 0.00 μg/m³.
- VOC concentrations at each CAMP station ranged from 0.0 to 0.2 ppm.

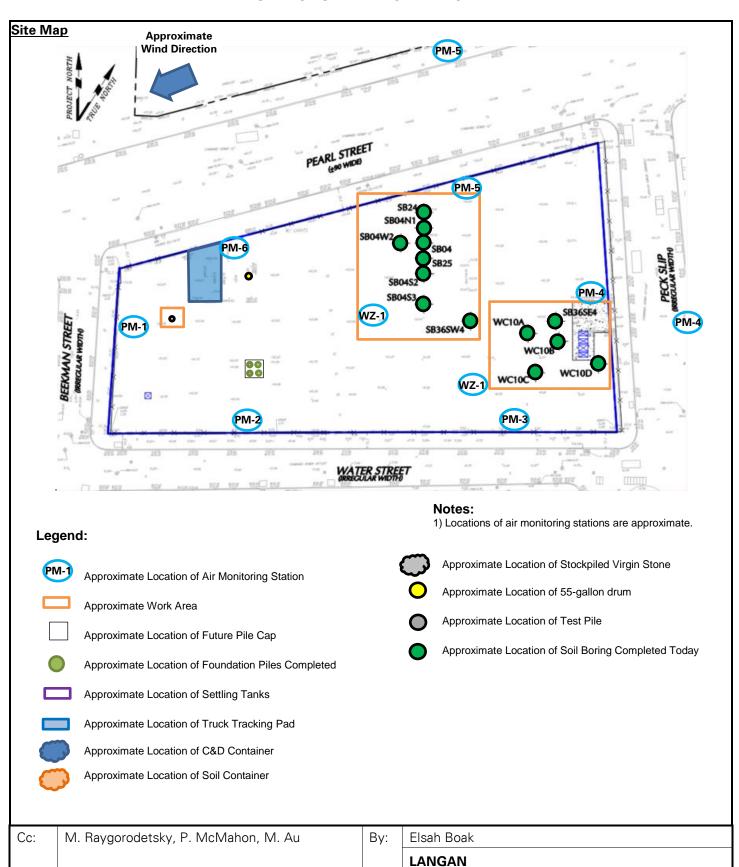
<u>Anticipated</u>	<u> Activities</u>

Cc: M. Raygorodetsky, P. McMahon, M. Au By: Elsah Boak	
LANGAN	
Pag	je 4 of



Page 5 of 7

## SITE OBSERVATION REPORT





Page 6 of 7

## SITE OBSERVATION REPORT

# Select Site Photographs:

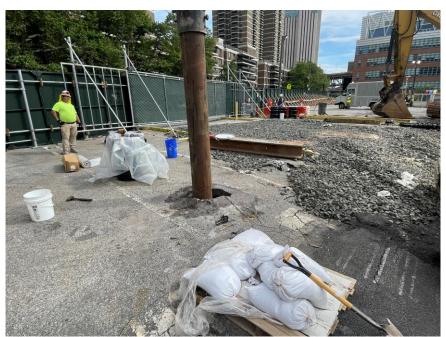


Photo 1: View of CCJV installing a test pile in the northwestern part of the site (facing northeast)



Photo 2: View of AARCO advancing soil boring SB24 in the northern part of the site (facing north)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 7 of 7

## SITE OBSERVATION REPORT

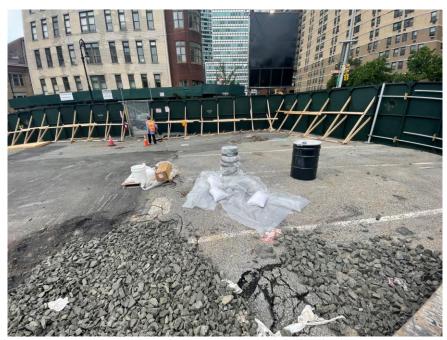


Photo 3: View of the installed test pile covered with polyethylene sheeting in the northwestern part of the site (facing west)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN

**Day 27** 



## SITE OBSERVATION REPORT

**PROJECT No.**: 170381202

CLIENT:

Corporation

DATE:

Tuesday, June 28, 2022

PROJECT:

250 Water Street

c/o The Howard Hughes

**Sunny**, 69.9 – 77.7 °F

WEATHER: 30

Wind: ENE @ 1.1 - 6.4 mph

**LOCATION:** New York, NY

TIME:

6:00 AM – 2:30 PM

**BCP SITE ID**: C231127

MONITOR: Elsar

Elsah Boak, Maitland Robinson,

Luke McCartney

**EQUIPMENT:** 

MiniRAE 3000 PID

DustTrak II Jerome J405® Jerome J505®

McCartney **LendLease** 

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – George Washburn New York State Department of Environmental Conservation (NYSDEC) –

Langan (Environmental/Geotechnical) - Elsah Boak, Maitland Robinson, Luke

Aaron Fischer, Rafi Alam

PRESENT AT SITE:

250 Seaport District, LLC

CAT 374F CAT 325F

Hand tools

Komatsu 969 APE Model 150

# **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- CCJV received 20, 55-gallon drums containing Atmos® AC-645 dust/odor suppressing foam. The drums were staged in the northern portion of the site for use during future remediation and construction activities.
- CCJV received 10 steel tiebacks in preparation for support-of-excavation (SOE) installation along the perimeter of the site.
- No ground-intrusive activities were completed throughout the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 2 of 6

## SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary							
Location Haledon, NJ		Ha	ndustries, Inc. ledon, NJ h Virgin Stone				
Quantities	No. of Approx. Volume Loads (Tons)		No. of Loads	Approx. Volume (Tons)			
Today	0	0	0	0			
Total	7	7 161.51		0			
NYSDEC Approved:	1,000 cubic yards (CY)						

Material Export Summary							
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		Ko Hazardou	th of North Jersey earny, NJ is Lead-Impacted Soil/Fill			
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)			
Today	0	0	0	0			
Total	2	25	14	280			

# **Sampling Activities**

• No samples were collected.

				LANGAN
(	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak



Page 3 of 6

### SITE OBSERVATION REPORT

#### **CAMP Activities**

No ground-intrusive activities were completed throughout the work day, however, Langan collected background readings at the perimeter of the site and at the future work zone at seven locations for particulate matter less than 10 microns in diameter (PM10), VOCs, and mercury vapor. Fifteen-minute time-weighted average concentrations of PM10, VOCs, and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) throughout the day.

### **Background Concentrations**

Background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld photoionization detector (PID), respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

#### Perimeter and Work Zone Concentrations

## **Daily Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.004	0.8	0.1
PM-2	0.004	0.0	0.0
PM-3	0.003	0.4	0.0
PM-4	0.003	0.0	0.3
PM-5	0.014	0.0	0.0
PM-6	0.007	0.2	0.0
WZ-1	0.008	0.0	0.0

### **Maximum 15-Minute-Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.005	1.1	0.2
PM-2	0.008	0.1	0.0
PM-3	0.008	0.7	0.0
PM-4	0.005	0.0	0.4
PM-5	0.021	0.1	0.1
PM-6	0.010	0.3	0.0
WZ-1	0.011	0.0	0.2

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

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- Langan used a handheld Jerome® J505 mercury vapor analyzer and a handheld PID to monitor ambient air conditions at various heights throughout the site.
  - Mercury vapor and VOC concentrations throughout the site were not detected at concentrations above background conditions for the duration of the work day.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak



Page 4 of 6

## SITE OBSERVATION REPORT

## Prior to CAMP Shutdown

Prior to discontinuing CAMP, VOC and mercury vapor concentrations were confirmed to return to background

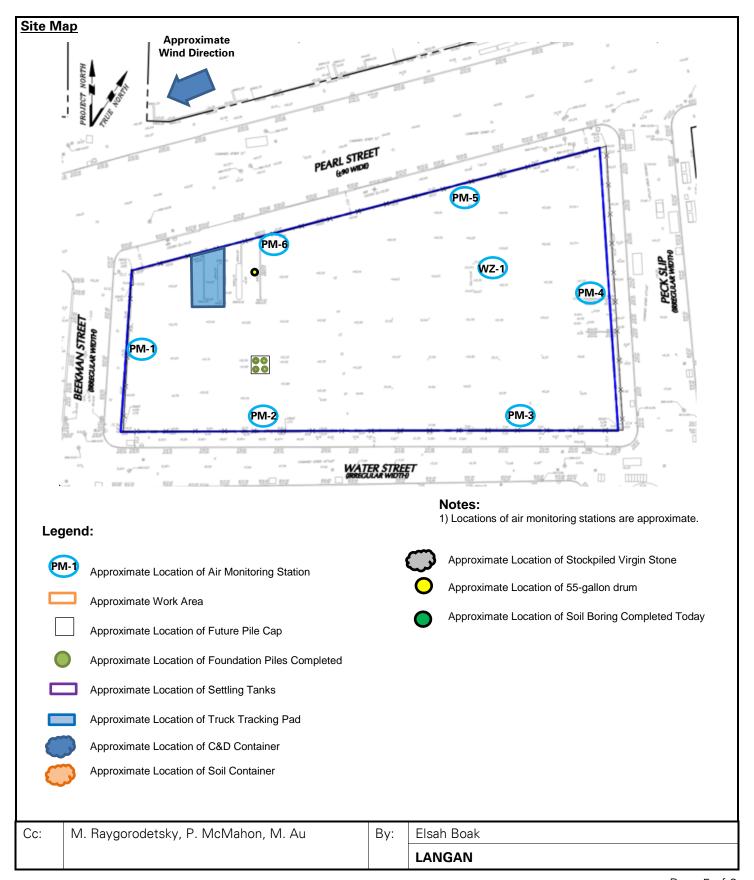
	ons at each perimeter station using the handheld stations were discontinued at 1:35 pm at the conclu		d handheld Jerome® J505 mercury vapor analyzer. f ground-intrusive activities.
•	Mercury vapor concentrations at each CAMP state VOC concentrations at each CAMP station were		
Anticip	ated Activities		
•	CCJV will continue mobilization activities, which materials.	includ	e assembly of a drill rig and delivery of construction
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## SITE OBSERVATION REPORT

# Select Site Photographs:



Photo 1: View of staged 55-gallon drums containing Atmos® AC-645 dust/odor suppressing foam (facing west)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN

Day 28



### SITE OBSERVATION REPORT

**PROJECT No.**: 170381202

CLIENT:

DATE:

Wednesday, June 29, 2022

PROJECT:

250 Water Street

New York, NY

C231127

250 Seaport District, LLC c/o The Howard Hughes

**WEATHER:** 

Sunny, 78.9 – 84.3 °F Wind: SE @ 1.3 – 6.8 mph

Corporation

TIME:

7:00 AM – 3:30 PM

MONITOR:

Elsah Boak, Brian Kenneally, Alex

Nolan

BCP SITE ID: EQUIPMENT:

LOCATION:

MiniRAE 3000 PID

DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
CAT 325F

PRESENT AT SITE:

Langan (Environmental/Geotechnical) – Elsah Boak, Brian Kenneally, Alex Nolan

LendLease (Construction Manager) - Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – George Washburn New York State Department of Environmental Conservation (NYSDEC) –

Aaron Fischer, Rafi Alam

APE Model 150 Comacchio CH 650

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- CCJV began assembly of a Comacchio CH 650 drill rig in preparation for support-of-excavation (SOE) soldier pile installation along the perimeter of the site.
- CCJV installed a test displacement soldier pile to approximately 50 feet below grade surface (bgs) in the central part of the site. Drilling began at 3:00 pm and was completed at about 3:30 pm. No spoils were generated during installation of the test pile. CCJV covered the test pile with polyethylene sheeting following installation.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally



Page 2 of 6

## SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary							
Facility Name Location Type of Material	Location Haledon, NJ		Ha	ndustries, Inc. Iedon, NJ h Virgin Stone			
Quantities	No. of Loads			Approx. Volume (Tons)			
Today	0	0	0	0			
Total	7	161.51	0	0			
NYSDEC Approved:							

Material Export Summary							
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		Ko Hazardou	h of North Jersey earny, NJ is Lead-Impacted Soil/Fill			
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)			
Today	0	0	0	0			
Total	2	25	14	280			

# **Sampling Activities**

• No samples were collected.

				LANGAN
Ī	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally



Page 3 of 6

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute time-weighted average concentrations of PM10, VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

• CAMP was not implemented until 10:42 am due to a lack of ground-intrusive activities.

#### **Background Concentrations**

Background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld photoionization detector (PID), respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 μg/m³ to 0.01 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

## Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Station ID Particulate (mg/m³)		Mercury Vapor (µg/m³)
PM-1 0.014		0.0	0.1
PM-2	0.003	0.1	0.0
PM-3	0.006	0.6	0.0
PM-4	0.010	0.0	0.4
PM-5	0.047	0.1	0.1
PM-6	0.023	0.0	0.0
WZ-1	0.026	0.0	0.0

## **Maximum 15-Minute-Average Concentrations**

Station ID	Station ID Particulate (mg/m³)		Mercury Vapor (µg/m³)					
PM-1 0.052		0.0	0.2					
PM-2	0.015	0.2	0.0					
PM-3	0.016	0.8	0.0					
PM-4	0.016	0.0	0.5					
PM-5	0.052	0.2	0.3					
PM-6	0.059	0.1	0.0					
WZ-1	0.044	0.0	0.0					

- $\bullet$ mg/m³ = milligrams per cubic meter  $\bullet$ ppm = parts per million  $\bullet$ µg/m³ = micrograms per cubic meter
- Instantaneous mercury vapor concentrations within the work zone ranged from 0.00 μg/m³ to 0.10 μg/m³.

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- Langan used a handheld Jerome® J505 mercury vapor analyzer and a handheld PID to monitor ambient air conditions at various heights throughout the site.
  - o Instantaneous mercury vapor concentrations throughout the site ranged from 0.00  $\mu g/m^3$  to 0.06  $\mu g/m^3$ .

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

o Instantaneous VOC concentrations were not recorded above background concentrations throughout the work day.

## **Equipment Troubleshooting**

• The DustTrak unit at perimeter CAMP station PM-3 was recalibrated at 1:54 pm due to negative readings being recorded. PM10 readings returned to background conditions following equipment recalibration and data logging resumed at 1:57 pm.

### Prior to CAMP Shutdown

Prior to discontinuing CAMP, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued between 3:38 pm and 3:45 pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 μg/m³ to 0.02 μg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

## **Anticipated Activities**

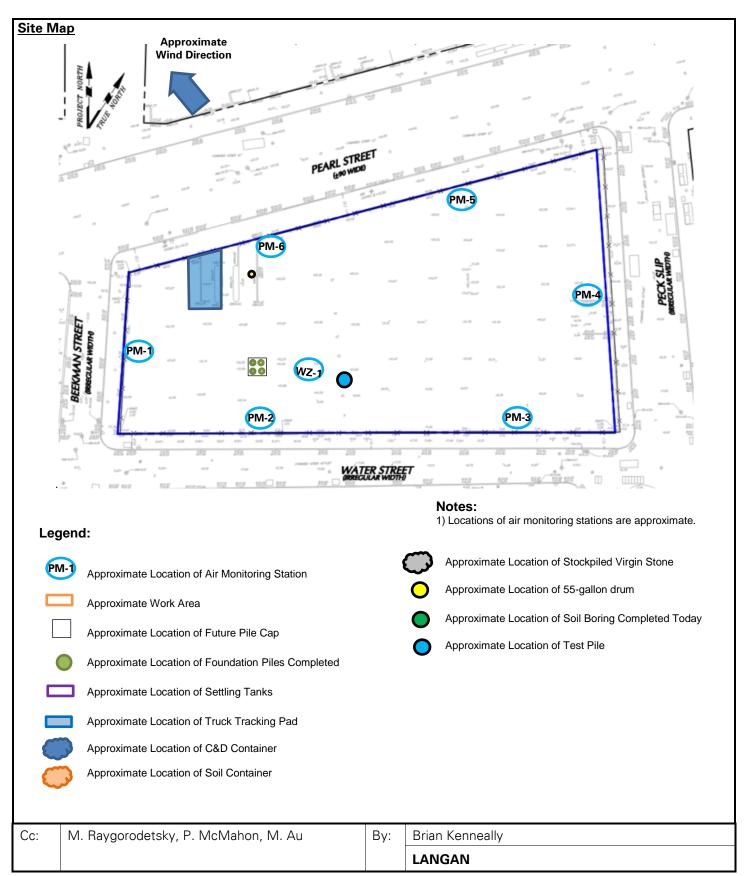
- CCJV will continue mobilization activities in preparation for remediation and construction activities at the site.
- Langan will collect soil samples to facilitate off-site disposal of soil/fill to be excavated during remedial activities.

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally
			LANGAN
		·	Page 4 of 6



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## **SITE OBSERVATION REPORT**

# Select Site Photographs:



Photo 1: View of CCJV installing a test displacement soldier pile in the central part of the site (facing southeast).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



### SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

**DATE**: Thu

Thursday, June 30, 2022

PROJECT:

250 Water Street

WEATHER:

Sunny, 73.0 – 84.5 °F Wind: ENE @ 1.0 – 5.8 mph

Elsah Boak, Maitland Robinson,

**LOCATION:** New York, NY

6:00 AM - 3:00 PM

**BCP SITE ID**: C231127

**TIME**: 0.00 AIVI = 3.00 1 IVI

MONITOR: Brian Kenneally

**EQUIPMENT:** 

PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

Day 29

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® **Langan** (Environmental/Geotechnical) – Elsah Boak, Maitland Robinson, Brian Kenneally

LendLease (Construction Manager) - Marty Cohen

Hand tools
CAT 374F
Komatsu 969
APE Model 150
Geoprobe® 6610 DT

**Civetta Cousins JV, LLC (CCJV)** (Foundation Contractor) – George Washburn **Lakewood Drilling (Lakewood)** (Drilling Contractor) – Adam Hutchinson **New York State Department of Environmental Conservation (NYSDEC)** –

Rafi Alam

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- Lakewood used a Geoprobe® 6610DT direct-push drill rig with 4- and 5-foot-long Marco-Core® samplers to advance 11 soil borings to facilitate off-site disposal of soil/fill in the south-central part of the site. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples:
  - Soil borings WC0206, WC0306, WC0406W, WC0406E, WC0609 were advanced to a depth of 4 feet below grade surface (bgs). Material was screened for odors, staining and organic vapors using a photoionization detector (PID). No evidence of impacts were observed
  - Soil borings WC11NE and WC11SE were advanced to a depth of about 10 feet bgs. Material was screened for odors, staining and organic vapors using a PID. Staining and a maximum PID reading of 21 parts per million (ppm) was observed in soil boring WC11NE from 8 to 10 feet bgs.
  - Soil borings SB28R, SB28\_W1, SB28\_N1, SB28\_E1 were advanced to a depth of about 8 feet bgs.
     Material was screened for odors, staining and organic vapors using a PID. No evidence of impacts were observed.
  - o Soil borings were backfilled with clean drill cuttings and/or clean sand and patched with cold patch asphalt after sampling was completed.

	ivi. Haygoroactsky, i . iviciviarion, ivi. / la	Dy.	LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Bv:	Maitland Robinson



Page 2 of 6

### SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary							
Facility Name Location Type of Material	Ha	ndustries, Inc. ledon, NJ ich Virgin Stone	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone				
Quantities	QuantitiesNo. of LoadsApprox. Volume (Tons)		No. of Loads	Approx. Volume (Tons)			
Today	0	0	0	0			
Total	7	161.51	0	0			
NYSDEC Approved:		1,000 cubic	yards (CY)				

Material Export Summary							
Facility Name Location Type of Material	Bro Con	co Recycling poklyn, NY estruction & on (C&D) Debris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill				
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)			
Today	0	0	0	0			
Total	2	25	14	280			

## Sampling Activities

- Langan collected five composite soil samples for laboratory analysis of polychlorinated biphenyls (PCBs).
- Langan collected six grab soil samples and two composite soil samples for laboratory analysis of total and toxicity characteristic leaching procedure (TCLP) lead.
  - o An additional 6 grab soil samples were collected and placed on hold with the laboratory for potential analysis of total and TCLP lead pending receipt of the initial laboratory report.
- Samples were relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

			LANGAN
Cc:	Cc: M. Raygorodetsky, P. McMahon, M. Au		Maitland Robinson



Page 3 of 6

### SITE OBSERVATION REPORT

## **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of PM10, VOCs, and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

### **Background Concentrations**

Prior to implementation of ground-intrusive work, background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.01 μg/m³ to 0.09 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

, , , , , , , , , , , , , , , , , , , ,						
Station ID Particulate (mg/m³)		Organic Vapor (ppm)	Mercury Vapor (µg/m³)			
PM-1	PM-1 0.016		0.1			
PM-2	0.020	0.0	0.0			
PM-3	0.015	0.6	0.0			
PM-4	0.019	0.0	0.0			
PM-5	0.024	0.1	0.1			
PM-6	0.008	0.2	0.0			
WZ-1	0.027	0.0	0.0			

### **Maximum 15-Minute-Average Concentrations**

Station ID	Station ID Particulate (mg/m³)		Mercury Vapor (µg/m³)
PM-1	PM-1 0.021		0.1
PM-2	0.068	0.0	0.0
PM-3	0.029	1.1	0.0
PM-4	0.037	0.0	0.0
PM-5	0.032	0.3	0.1
PM-6	0.026	1.1	0.0
WZ-1	0.045	0.0	0.0

ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- Langan used a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.24 µg/m³.
- Langan used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

### Off-Site CAMP Station Relocation

• Air monitoring station WZ-1 was relocated to the southern sidewalk of Water Street from 6:28am to 1:10pm.

### **Equipment Troubleshooting**

- Drilling activities were halted between 9:03am and 9:09am during battery replacement at perimeter CAMP station PM-4. PM10 concentrations were not recorded during this time and fugitive dust was not observed migrating from the site. Data logging resumed at 9:10am.
- The DustTrak unit at perimeter CAMP station PM-6 was recalibrated at 11:04am due to negative readings being recorded. PM10 readings returned to background conditions following equipment recalibration and data logging resumed at 11:08am.

### Prior to CAMP Shutdown

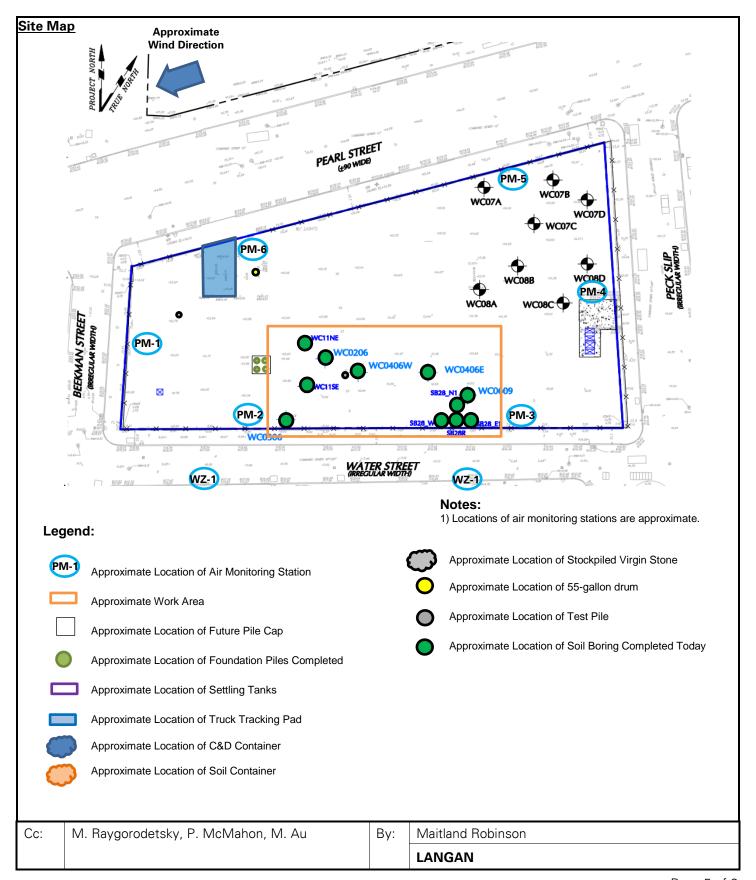
Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued between 12:59pm and 1:10pm at the conclusion of ground-intrusive activities.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
•	Lakewood will continue advancing soil borings t remediation and construction activities.	o facilit	rate off-site disposal of soil/fill to be excavated during
Anticip	ated Activities		
•	Mercury vapor concentrations at each CAMP sta VOC concentrations at each CAMP station were		



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## **SITE OBSERVATION REPORT**

# Select Site Photographs:



Photo 1: View of Lakewood advancing a soil boring in the south-central part of the site (facing east).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Maitland Robinson
			LANGAN



### SITE OBSERVATION REPORT

**PROJECT No.**: 170381202

CLIENT:

**DATE**: Friday, July 1, 2022

FROJECT No.: 17030

250 Seaport District, LLC c/o The Howard Hughes

Corporation

PRESENT AT SITE:

PROJECT:

250 Water Street

**WEATHER:** Sunny, 72.8 – 95.9 °F Wind: S @ 0.3 – 6.0 mph

**LOCATION**: New York, NY

6:00 AM – 2:00 PM

BCP SITE ID: C231127

**TIME:** 0.00 AIVI = 2.00 1 IVI

MONITOR: Elsah Boak, Alex Nolan, Brian Kenneally

**EQUIPMENT:** 

MiniRAE 3000 PID

Day 30

DustTrak II

Jerome J405<sup>®</sup> Jerome J505<sup>®</sup> Hand tools CAT 374F **Langan** (Environmental/Geotechnical) – Elsah Boak, Alex Nolan, Brian Kenneally **LendLease** (Construction Manager) – Marty Cohen

**Civetta Cousins JV, LLC (CCJV)** (Foundation Contractor) **Lakewood Drilling** (Drilling Contractor) – Adam Hutchinson

Komatsu 969 APE Model 150 Geoprobe® 6610 DT

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- Lakewood used a Geoprobe® 6610DT direct-push drill rig with 5-foot-long Marco-Core® samplers to advance 8 soil borings to generate waste characterization data for future excavation and off-site disposal of soil/fill in the northeastern part of the site. Langan observed and documented the work, screened the soil samples for environmental impacts, and collected soil samples:
  - Soil borings WC07A, WC07B, WC07C, WC07D, WC08A, WC08B, WC08C, and WC08D were advanced to a depth of 15 feet below ground surface (bgs). Material was screened for odors, staining and organic vapors using a photoionization detector (PID). Odors, staining and/or a maximum PID reading of 980.7 parts per million (ppm) in soil boring WC08D were observed from about 1.5 to 15 feet bgs.
  - o Soil borings were backfilled with clean drill cuttings and/or clean sand and patched with cold patch asphalt after sampling was completed.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 2 of 6

### SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

	Material Import Summary						
Facility Name Location Type of Material	Ha	ndustries, Inc. ledon, NJ ich Virgin Stone	Ha	ndustries, Inc. ledon, NJ h Virgin Stone			
Quantities	No. of Approx. Volume Loads (Tons)		No. of Loads	Approx. Volume (Tons)			
Today	0	0	0	0			
Total	7	161.51	0	0			
NYSDEC Approved:		1,000 cubic	yards (CY)				

Material Export Summary						
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		Location Brooklyn, NY Type of Construction &		Ko Hazardou	th of North Jersey earny, NJ is Lead-Impacted Soil/Fill
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)		
Today	0	0	0	0		
Total	2	25	14	280		

## **Sampling Activities**

- Langan collected six composite soil samples for laboratory analysis of oil/grease (total and leachate), total volatile solids, ammonia-nitrogen, chemical oxygen demand (COD), toxicity characteristic leaching procedure (TCLP) pyridine, TCLP molybdenum, and pH (for TCLP leachate).
- Samples were relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 3 of 6

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for particulate matter less than 10 microns in diameter (PM10), VOCs, and mercury vapor during ground-intrusive activities. Fifteenminute average concentrations of VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities. Fifteen-minute average concentrations of PM10 exceeded the action level established in the site CAMP in once instance discussed below.

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 μg/m³ to 0.03 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.045	0.0	0.0
PM-2	0.047	0.0	0.0
PM-3	0.040	0.3	0.0
PM-4	0.043	0.0	0.0
PM-5	0.039	0.1	0.0
PM-6	0.055	0.5	0.0
WZ-1	0.062	0.0	0.0

### **Maximum 15-Minute-Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.073	0.0	0.0
PM-2	0.063	0.1	0.0
PM-3	0.047	0.7	0.0
PM-4	0.051	0.0	0.0
PM-5	0.052	0.1	0.0
PM-6	*0.218 @ 10:13am	1.2	0.0
WZ-1	0.070	0.0	0.0

 $lacktriangledown mg/m^3 = milligrams per cubic meter$  lacktriangledown ppm = parts per million  $lacktriangledown \mu g/m^3 = micrograms per cubic meter$ 

\*Particulate (PM10) concentrations exceeded the action level established in the CAMP from 10:13am to 10:26am at perimeter CAMP station PM-6 due to pinched tubing attached to the intake of the particulate monitor. The particulate monitor was recalibrated at 10:27am and the tubing was replaced. Particulate concentrations returned to background conditions and data logging resumed at 10:28am. The exceedances were determined not to be the result of ground-intrusive activities, as the two downwind CAMP stations nearest to the work area (PM-4 and PM-5) did not register PM10 above background conditions. Fugitive dust was not observed leaving the site during this time.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.13 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the eastern sidewalk of Peck Slip from 7:09am to 10:04am during advancement of soil borings WC07D and WC08D.
- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 10:04am to 12:10pm during advancement of soil borings WC07A and WC07B.

### **Equipment Troubleshooting**

- The PID at perimeter CAMP station PM-6 was recalibrated at 9:42am due to a persistent reading of 1.2 ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). VOC concentrations returned to background conditions following equipment recalibration and data logging resumed at 9:43am.
- The DustTrak unit at perimeter CAMP station PM-6 was recalibrated at 10:27am due to erroneous high readings caused by pinched tubing attached to the intake of the particulate monitor. PM10 concentrations returned to background conditions following equipment recalibration and replacement of the tubing and data logging resumed at 10:28am.

### Prior to CAMP Shutdown

- Prior to discontinuing CAMP, all locations in which ground-intrusive activities occurred (ie. soil borings) were backfilled with clean drill cuttings and/or clean sand and were sealed at the surface using cold patch asphalt.
- Prior to discontinuing CAMP, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer. CAMP stations were discontinued sequentially between 12:03 pm and 12:11 pm at the conclusion of ground-intrusive activities.
  - o Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.03 μg/m³.
  - o VOC concentrations at each CAMP station were recorded at 0.0 ppm.

## **Anticipated Activities**

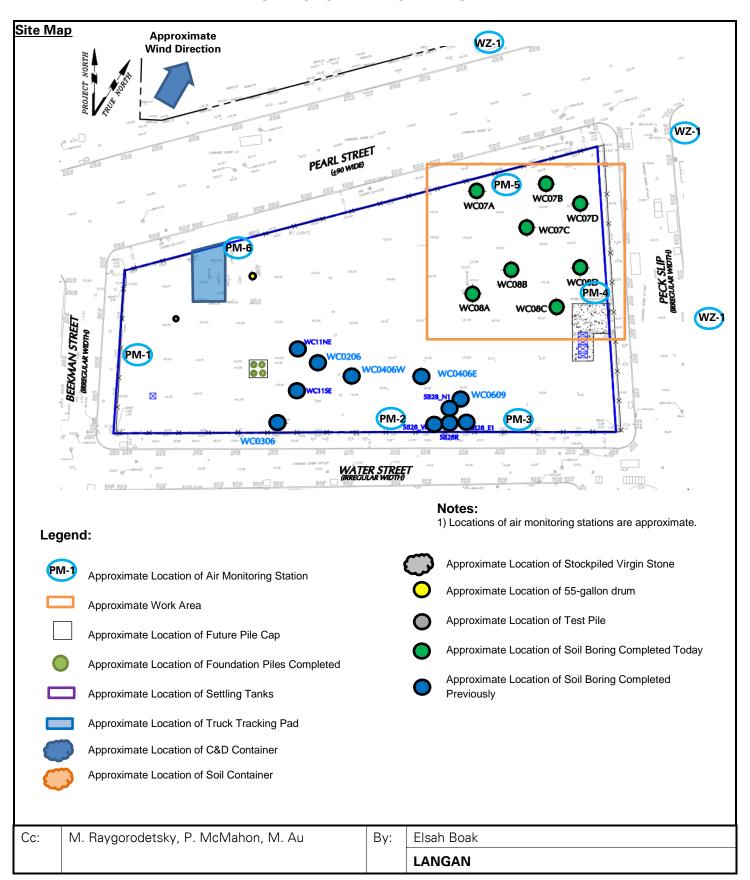
• CCJV will begin relocation of the construction fence along the perimeter of the site (pending receipt of a permit from the New York City Department of Transportation (NYCDOT).

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak



Page 5 of 6

### SITE OBSERVATION REPORT





Page 6 of 6

## SITE OBSERVATION REPORT

# Select Site Photographs:



Photo 1: View of Lakewood advancing a soil boring in the northeastern part of the site (facing northeast).



Photo 2: View of a CAMP station located on the eastern sidewalk of Peck Slip (facing south).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

DATE: Tuesday, July 5, 2022

250 Water Street

**WEATHER:** 

Sunny, 72.6 – 85.4 °F

PROJECT:

Corporation

250 Seaport District, LLC c/o The Howard Hughes

Wind: SE @ 1.4 - 7.0 mph

LOCATION: New York, NY

6:00 AM - 1:00 PM TIME:

**BCP SITE ID:** C231127

Brian Kenneally, Maitland **MONITOR:** Robinson, Ava Sann

**EQUIPMENT:** 

MiniRAE 3000 PID

DustTrak II Jerome J405® Jerome J505® Hand tools **CAT 374F** Komatsu 969

APE Model 150 Geoprobe® 6610 DT PRESENT AT SITE:

Day 31 **Langan** (Environmental/Geotechnical) - Brian Kenneally, Maitland Robinson,

Ava Sann

**LendLease** (Construction Manager) – Marty Cohen

New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

**OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:** 

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### Site Activities

- Civetta Cousins JV, LLC (CCJV) was not present on site and no remediation and/or construction activities were completed.
- Langan was on site for delivery of a new telemetry-equipped air monitoring system capable of integrating the Jerome® J505 mercury vapor analyzers. Langan collected background readings using the existing community air monitoring program (CAMP) system in preparation for a test of the new system, however, air monitoring was discontinued upon notification from the equipment rental company that the delivery was delayed.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 2 of 6

## SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary					
Facility Name Location Type of Material	Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone		Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		
Quantities	No. of Approx. Volume Loads (Tons)		No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	
Total	7	161.51	0	0	
NYSDEC Approved:	1,000 cubic yards (CY)				

Material Export Summary				
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0
Total	2	25	14	280

# **Sampling Activities**

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 3 of 6

### SITE OBSERVATION REPORT

### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site at six total locations for particulate matter less than 10 microns in diameter (PM10), VOCs, and mercury vapor. Fifteen-minute average concentrations of PM10, VOCs, and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of air monitoring activities.

### **Background Concentrations**

Prior to implementation of air monitoring, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 μg/m³ to 0.01 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

### Perimeter Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.029	0.3	0.0
PM-2	0.031	0.0	0.0
PM-3	0.026	0.4	0.0
PM-4	0.029	0.0	0.0
PM-5	0.032	0.4	0.3
PM-6	0.034	0.4	0.0

#### **Maximum 15-Minute-Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.041	0.6	0.0
PM-2	0.042	0.0	0.0
PM-3	0.035	0.7	0.2
PM-4	0.041	0.0	0.0
PM-5	0.037	0.6	0.4
PM-6	0.043	0.6	0.0

ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used three handheld Jerome® J505 mercury vapor analyzers to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.11 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

### Prior to CAMP Shutdown

Prior to discontinuing air monitoring activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued sequentially between 12:07pm and 12:11 pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.04 μg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

### Anticipated Activities

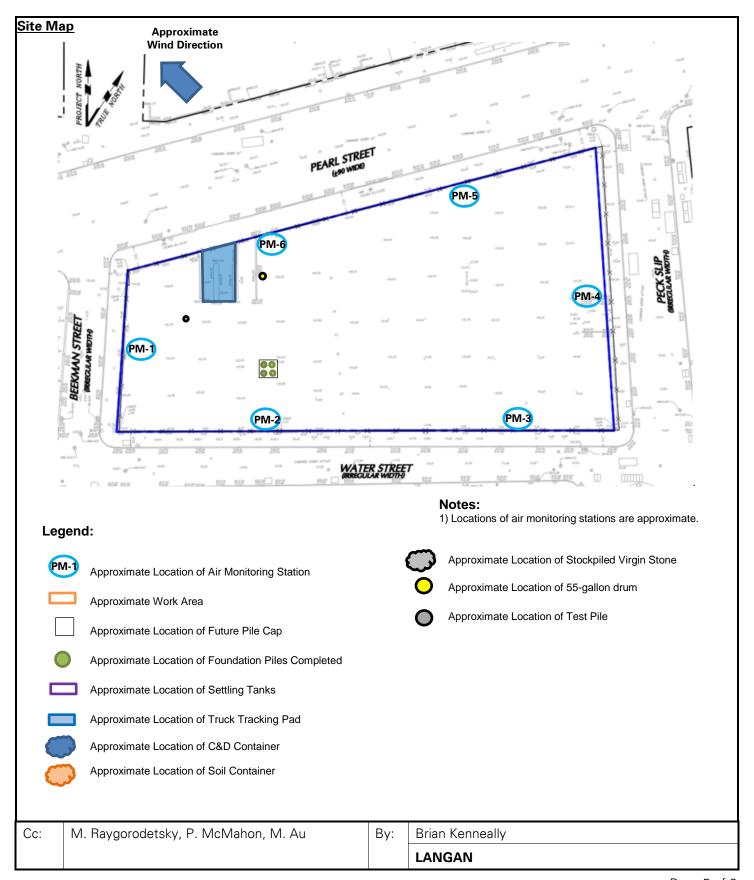
- CCJV will continue mobilization of equipment to the site for remediation and construction activities. CCJV will install a test displacement soldier pile.
- CCJV will begin relocation of the construction fence along the perimeter of the site (pending receipt of a permit from the New York City Department of Transportation [NYCDOT])

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## SITE OBSERVATION REPORT

## Select Site Photographs:



Photo1: General view of the site (facing northwest).

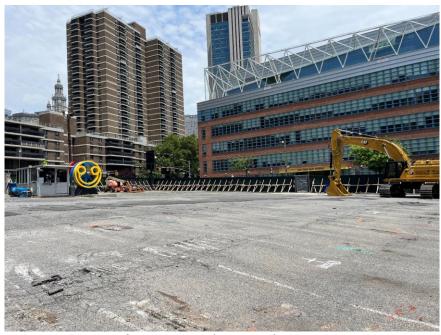


Photo 2: General view of the site (facing northeast).

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally



### SITE OBSERVATION REPORT

**PROJECT No.** 170381202

CLIENT:

Corporation

**DATE**: Wednesday, July 6, 2022

PROJECT:

250 Water Street

250 Seaport District, LLC c/o The Howard Hughes

WEATHER:

Overcast, 77.0 – 86.3 °F

:AIHER: Wind

Wind: ENE @ 0.7 - 6.2 mph

**LOCATION:** New York, NY

TIME:

6:00 AM - 3:00 PM

BCP SITE ID: C231127

MONITOR: Brian Kenneally, Maitland Robinson

**EQUIPMENT:** 

MiniRAE 3000 PID

DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F

PRESENT AT SITE:

Day 32

**Langan** (Environmental/Geotechnical) – Brian Kenneally, Maitland Robinson

**LendLease** (Construction Manager) – Marty Cohen

New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

Komatsu 969 APE Model 150

Geoprobe® 6610 DT Toyota Forklift

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### Site Activities

- Civetta Cousins JV, LLC (CCJV) was not present on site and no remediation and/or construction activities were completed.
- Citi Bike used hand tools to remove a bike station along the Pearl Street sidewalk in preparation for future relocation of the perimeter construction fence. Although the work was not completed within the boundaries of the BCP site, Langan implemented the community air monitoring plan (CAMP) out of an abundance of caution.
- Con Edison investigated manholes along the Pearl Street sidewalk, immediately north of the site, to disconnect power to the site. Langan was notified that Con Edison was not able to locate the correct manhole and will be returning at a later date to complete the disconnection.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally



Page 2 of 6

## SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary								
Facility Name Location Type of Material	На	ndustries, Inc. ledon, NJ ich Virgin Stone	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone					
Quantities	No. of Approx. Volume Loads (Tons)		No. of Loads	Approx. Volume (Tons)				
Today	0	0	0	0				
Total	7	161.51	0	0				
NYSDEC Approved:	1,000 cubic yards (CY)							

Material Export Summary							
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		Ko Hazardou	th of North Jersey earny, NJ is Lead-Impacted Soil/Fill			
Quantities	No. of Loads			Approx. Volume (CY)			
Today	0	0	0	0			
Total	2	25	14	280			

# **Sampling Activities**

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 3 of 6

## SITE OBSERVATION REPORT

## **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the northern sidewalk of Pearl Street at seven total locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor. Fifteen-minute average concentrations of PM10, VOCs, and mercury vapor did not exceed the action levels established in the site CAMP for the duration of air monitoring activities.

### **Background Concentrations**

Prior to implementation of air monitoring, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

## Perimeter Concentrations

**Daily Average Concentrations** 

	,	, •	
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.021	0.1	0.0
PM-2	0.023	0.3	0.0
PM-3	0.021	0.5	0.0
PM-4	0.021	0.0	0.0
PM-5	0.016	0.1	0.0
PM-6	0.027	0.1	0.0
WZ-1	0.037	0.0	0.0

## **Maximum 15-Minute-Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.052	0.4	0.0
PM-2	0.052	0.4	0.0
PM-3	0.045	0.8	0.0
PM-4	0.047	0.0	0.0
PM-5	0.023	0.2	0.0
PM-6	0.052	0.7	0.0
WZ-1	0.066	0.1	0.0

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

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used two handheld Jerome® J505 mercury vapor analyzers to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.14 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

## Off-Site CAMP Station Relocation

• CAMP station WZ-1 was placed on the northern sidewalk of Pearl Street from 6:56am to 2:10pm during removal of a Citi Bike station located along the Pearl Street sidewalk, immediately north of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer. CAMP stations were discontinued sequentially between 2:10pm and 2:25pm.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.05 μg/m³.
- VOC concentrations at each CAMP station were recorded at 0.1 ppm.

## **Anticipated Activities**

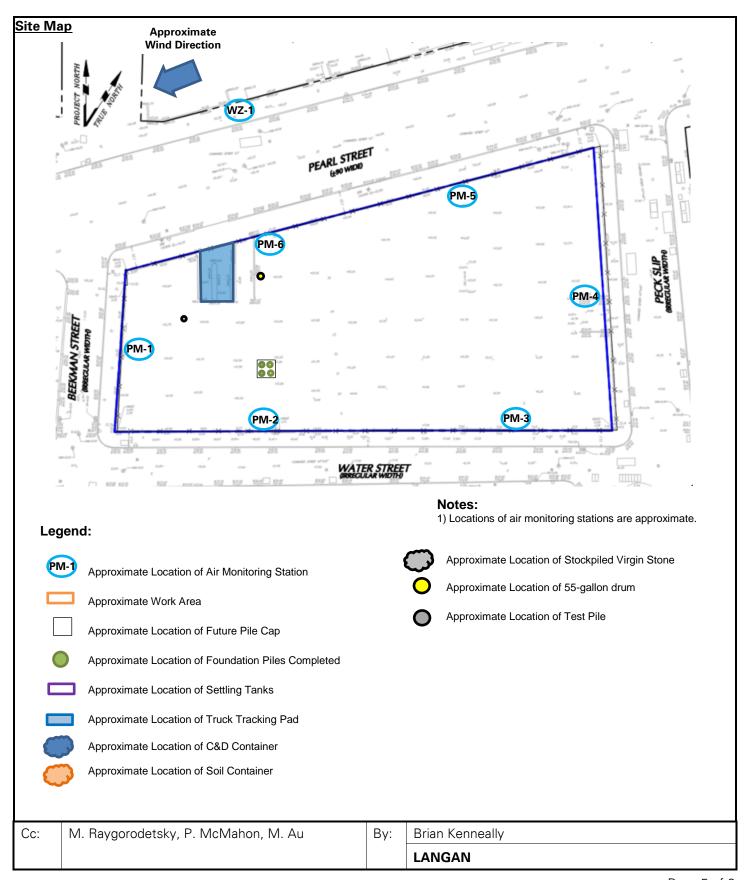
- CCJV will install a test displacement soldier pile in the central part of the site in preparation for support-of-excavation installation along the perimeter of the site.
- CCJV will begin relocation of the construction fence along the perimeter of the site (pending receipt of a permit from the New York City Department of Transportation [NYCDOT])

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## SITE OBSERVATION REPORT

## Select Site Photographs:



Photo 1: View of the Citi Bike station removed from the Pearl Street sidewalk, immediately north of the site (facing southwest)



Photo 2: View of a CAMP station located on the northern sidewalk of Pearl Street (facing northwest)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN

Day 33



## SITE OBSERVATION REPORT

**PROJECT No.** 170381202

CLIENT:

Corporation

**DATE**: Thursday, July 7, 2022

PROJECT:

LOCATION:

250 Water Street

New York, NY

WEATHER:

Overcast, 74.6 – 82.9 °F Wind: N @ 0.8 – 10.2 mph

TIME:

6:00 AM - 3:00 PM

**BCP SITE ID**: C231127

MONITOR: Brian Kenneally, Maitland Robinson

**EQUIPMENT:** 

MiniRAE 3000 PID

DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
Komatsu 969
APE Model 150

PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

**Langan** (Environmental/Geotechnical) – Brian Kenneally, Maitland Robinson

**LendLease** (Construction Manager) – Marty Cohen **CCJV** (Foundation Contractor) – Joseph Pastore

New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### Site Activities

• CCJV used a Comacchio CH 650 drill rig to remove and reinstall a test displacement soldier pile in the central part of the site in preparation for support-of-excavation installation along the perimeter of the site. Drilling began at approximately 11:30am and was completed at approximately 2:30pm. No spoils were generated during installation of the test pile. CCJV covered the test pile with polyethylene sheeting following installation.

Cc: M. Raygorodetsky, P. McMahon, M. Au

By: Brian Kenneally

LANGAN



Page 2 of 6

## SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary							
Facility Name Location Type of Material	Ha	ndustries, Inc. ledon, NJ ich Virgin Stone	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone				
Quantities	No. of Approx. Volume Loads (Tons)		No. of Loads	Approx. Volume (Tons)			
Today	0	0	0	0			
Total	7	161.51	0	0			
NYSDEC Approved:	1,000 cubic yards (CY)						

Material Export Summary							
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		Ko Hazardou	h of North Jersey earny, NJ is Lead-Impacted Soil/Fill			
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)			
Today	0	0	0	0			
Total	2	25	14	280			

# **Sampling Activities**

• No samples were collected.

				LANGAN
Ī	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally



Page 3 of 6

### SITE OBSERVATION REPORT

## **CAMP** Activities

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of PM10, VOCs, and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

## **Background Concentrations**

Prior to implementation of air monitoring, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from of 0.00 to 0.05 μg/m³.
- Background concentrations of VOCs at each CAMP station ranged from 0.0 to 0.1 ppm.

## Perimeter Concentrations

**Daily Average Concentrations** 

, , ,						
Station ID	Station ID Particulate (mg/m³)		Mercury Vapor (µg/m³)			
PM-1	PM-1 0.006		0.0			
PM-2	PM-2 0.009		0.0			
PM-3	0.009	0.3	0.0			
PM-4	0.008	0.0	0.0			
PM-5	0.022	0.0	0.0			
PM-6	0.013	0.2	0.0			
WZ-1	0.015	0.0	0.0			

## **Maximum 15-Minute-Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	PM-1 0.017		0.0
PM-2	0.024	0.3	0.0
PM-3	0.017	1.0	0.2
PM-4	0.012	0.0	0.0
PM-5	0.029	0.1	0.0
PM-6	0.040	1.4	0.0
WZ-1	0.024	0.1	0.0

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

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used two handheld Jerome® J505 mercury vapor analyzers to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.11 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

### **Equipment Troubleshooting**

• The PID at perimeter CAMP station PM-6 was recalibrated at 9:01am due to a persistent reading of 1.0 ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). VOC concentrations returned to background conditions following equipment recalibration and data logging resumed at 9:10am.

#### Prior to CAMP Shutdown

Prior to discontinuing air monitoring activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued between 3:04pm and 3:05pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station were recorded at 0.00 µg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

## Anticipated Activities

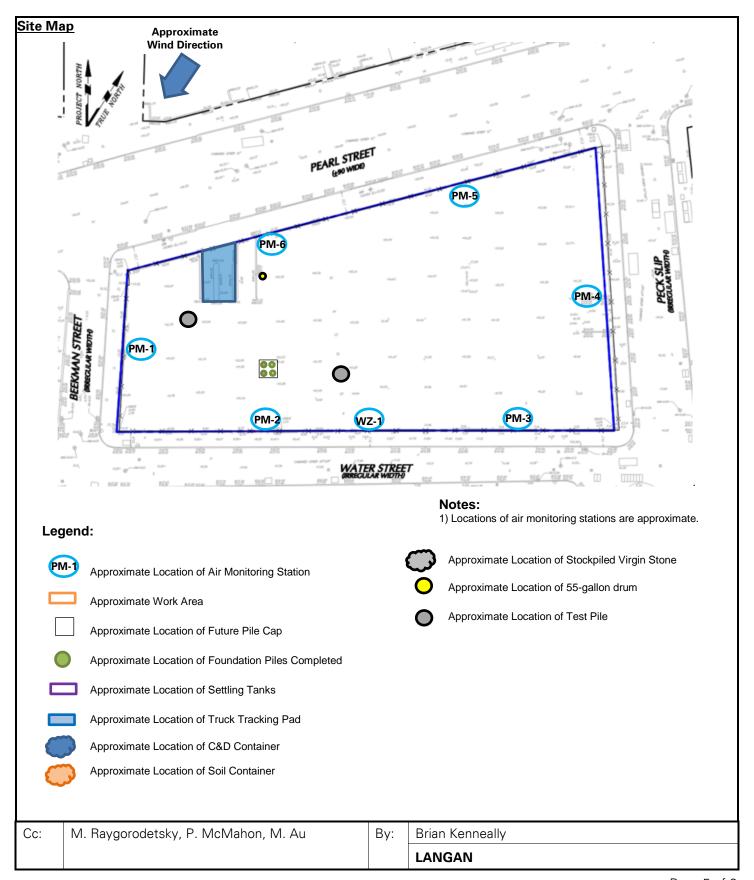
- CCJV will begin relocation of the construction fence along the perimeter of the site (pending receipt of a permit from the New York City Department of Transportation [NYCDOT])
- Lakewood Environmental Services Corp. (Lakewood)/Langan will advance soil borings for supplemental waste characterization soil sampling in the west-central and southern parts of the site.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## SITE OBSERVATION REPORT

## Select Site Photographs:

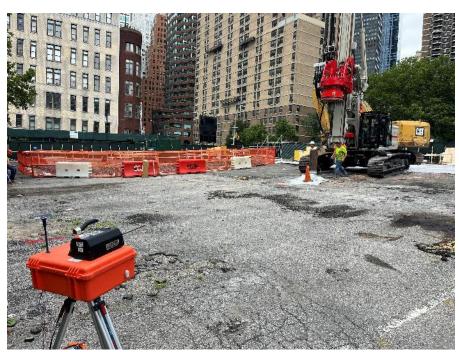


Photo 1: View of CCJV preparing to remove a test displacement soldier pile in the central part of the site (facing northwest).



Photo 2: View of CCJV reinstalling a test displacement soldier pile in preparation for support-of-excavation installation (facing northwest).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE:

Friday, July 8, 2022

PROJECT:

250 Water Street

WEATHER:

Mostly Cloudy, 71.0 – 81.5 °F

250 vvater Street

Wind: SW @ 0.7 – 5.1 mph

**LOCATION:** New York, NY

TIME:

6:00 AM – 2:00 PM

BCP SITE ID: C231127

MONITOR:

Maitland Robinson, Gabriel Enriquez Castro, Brian Kenneally

**EQUIPMENT:** 

Hand tools

**CAT 374F** 

**PRESENT AT SITE:** 

250 Seaport District, LLC c/o The Howard Hughes

Day 34

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® **Langan** (Environmental) – Brian Kenneally, Maitland Robinson, Gabriel Enriquez Castro, Ava Sann

Landlages (Cons

**LendLease** (Construction Manager) – Marty Cohen **Civetta Cousins JV, LLC (CCJV)** (Foundation Contractor)

Lakewood Environmental Services Corp. (Drilling Contractor) – Adam

Hutchinson

Komatsu 969 APE Model 150 New York State Department of Environmental Conservation (NYSDEC) –

Rafi Alam

Geoprobe® 6610 DT

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- Lakewood used a Geoprobe® 6610DT direct-push drill rig with 4 and 5-foot-long Marco-Core® samplers to
  advance 10 soil borings to determine the extents of previously identified hazardous lead in the west-central
  and south-central parts of the site. Langan observed and documented the work, screened the soil samples for
  environmental impacts, and collected soil samples.
  - Soil borings WC11N, WC11S, WC11NW, and WC11SW were advanced to a depth of 10 feet below ground surface (bgs). Material was screened for odors, staining and organic vapors using a photoionization detector (PID). A maximum PID reading of 20.3 parts per million (ppm) was observed in soil boring WC11N at about 6.5 feet bgs.
  - Soil borings SB28R, SB28\_N1, SB28\_NE1, SB28\_NW1, SB28\_N2, and SB28\_N3 were advanced to a depth of 8 feet bgs. Material was screened for odors, staining and organic vapors using a PID. A maximum PID reading of 30.0 ppm was observed in soil boring SB28\_N3 at about 7.5 feet bgs.
  - o Soil borings were backfilled with clean drill cuttings and/or clean sand and patched with cold patch asphalt after sampling was completed.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson



Page 2 of 6

### SITE OBSERVATION REPORT

## Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary								
Facility Name Location Type of Material	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone							
Quantities	No. of Approx. Volume Loads (Tons)		No. of Loads	Approx. Volume (Tons)				
Today	0	0 0		0				
Total	7	161.51	0	0				
NYSDEC Approved:	1,000 cubic yards (CY)							

Material Export Summary								
Facility Name Location Type of Material	Bro Con	co Recycling ooklyn, NY estruction & on (C&D) Debris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill					
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)				
Today	0	0 0		0				
Total	2	25	14	280				

## **Sampling Activities**

- Langan collected four composite soil samples and four grab soil samples for laboratory analysis of total and toxicity characteristic leaching procedure (TCLP) lead.
  - o An additional 8 grab soil samples were collected and placed on hold with the laboratory for potential analysis of total and TCLP lead pending receipt of the initial laboratory report.
- Langan collected one composite soil sample for laboratory analysis of NYSDEC Part 375/target compound list (TCL) semivolatile organic compounds (SVOCs), pesticides/herbicides, and polychlorinated biphenyls (PCBs), Part 375/target analyte list (TAL) metals (including hexavalent/trivalent chromium and total cyanide), TCLP metals, Resource Conservation and Recovery Act (RCRA) characteristics, paint filter, and full TCLP parameters (minus TCLP volatile organic compounds [VOCs]).
- Langan collected one grab soil sample for laboratory analysis of NYSDEC Part 375/TCL VOCs, TCLP VOCs, and New Jersey Department of Environmental Protection (NJDEP) extractable petroleum hydrocarbons (EPH).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 3 of 6

### SITE OBSERVATION REPORT

• Samples were relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for particulate matter less than 10 microns in diameter (PM10), VOCs, and mercury vapor, during ground-intrusive activities. Fifteenminute average concentrations of VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 μg/m³ to 0.01 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

### Perimeter and Work Zone Concentrations

## **Daily Average Concentrations**

Station ID	Station ID Particulate (mg/m³)		Mercury Vapor (µg/m³)
PM-1	PM-1 0.013		0.0
PM-2	0.021	0.3	0.0
PM-3	0.013	0.4	0.0
PM-4	0.015	0.0	0.0
PM-5	0.016	0.2	0.0
PM-6	0.019	0.5	0.0
WZ-1	0.028	0.0	0.0

## **Maximum 15-Minute-Average Concentrations**

Station ID	Station ID Particulate (mg/m³)		Mercury Vapor (µg/m³)
PM-1	PM-1 0.020		0.0
PM-2	0.073	0.4	0.0
PM-3	0.032	0.9	0.0
PM-4	0.021	0.0	0.0
PM-5	0.030	0.5	0.0
PM-6	0.042	1.1	0.0
WZ-1	0.082	0.0	0.0

●mg/m³ = milligrams per cubic meter	ppm = parts per million	●µg/m³ = microgram	s per cubic meter
-------------------------------------	-------------------------	--------------------	-------------------

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00  $\mu$ g/m<sup>3</sup> to 0.10  $\mu$ g/m<sup>3</sup>.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

### Off-Site CAMP Station Relocation

• CAMP station WZ-1 was relocated to the southern sidewalk of Water Street from 6:54am to 12:35pm during advancement of soil borings in the west-central and south-central parts of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations

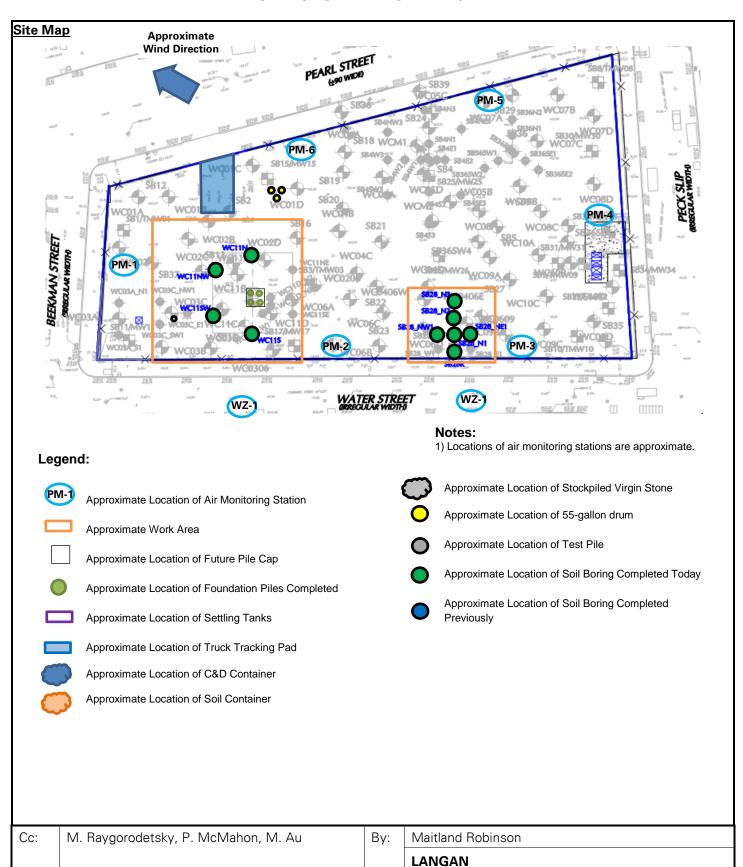
Jerome	onfirmed to return to background conditions at eac e <sup>®</sup> J505 mercury vapor analyzer. CAMP stations were conclusion of ground-intrusive activities.		meter station using the handheld PID and handheld ntinued sequentially between 12:35pm and 12:53pm
•	Mercury vapor concentrations at each CAMP static VOC concentrations at each CAMP station were re-		
Anticipa	ated Activities		
•	CCJV will begin relocation of the perimeter constr	uction	fence along Peck Slip.
Cc:	M. Ravgorodetsky, P. McMahon, M. Au	Bv:	Maitland Robinson

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## SITE OBSERVATION REPORT

## Select Site Photographs:



Photo 1: View of Lakewood advancing a soil boring in the south-central part of the site (facing east).



Photo 2: View of Lakewood advancing a soil boring in the west-central part of the site (facing north).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE: Monday, July 11, 2022

PROJECT:

LOCATION:

250 Water Street

New York, NY

**WEATHER:** 

Overcast, 69.0 – 84.0 °F Wind: SE @ 1.4 - 6.4 mph

TIME:

6:00 AM - 4:00 PM

**BCP SITE ID:** 

C231127

**MONITOR:** 

Alex Nolan, Gabriel Enriquez

Castro, Brian Kenneally

**EQUIPMENT:** 

MiniRAE 3000 PID

DustTrak II Jerome J405® Jerome J505® Hand tools

APE Model 150 Geoprobe® 6610 DT

**CAT 374F** Komatsu 969 PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

Day 35 Langan (Environmental) - Brian Kenneally, Alex Nolan, Gabriel Enriquez Castro,

Rachel Condon

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - George Washburn New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

**OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:** 

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- CCJV extended the perimeter construction fencing to the east by about two feet along the western sidewalk of Peck Slip.
- CCJV tested the spray pump for the Atmos® AC-645 dust/odor suppressing foam using clean hydrant water in preparation for future application during excavation.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally



Page 2 of 6

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary						
Facility Name Location Type of Material	Ha	ndustries, Inc. ledon, NJ ich Virgin Stone	На	ndustries, Inc. Iedon, NJ h Virgin Stone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)		
Today	0	0	0	0		
Total	7	161.51	0	0		
NYSDEC Approved:	1,000 cubic yards (CY)					

Material Export Summary					
Facility Name Location Type of	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		K	h of North Jersey earny, NJ Is Lead-Impacted	
Material			Soil/Fill		
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	
Today	0	0	0	0	
Total	2	25	14	280	

## **Sampling Activities**

No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 3 of 6

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Buny Attorney Contoundations								
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)					
PM-1	0.014	0.1	0.0					
PM-2	0.015	0.0	0.0					
PM-3	0.013	0.4	0.0					
PM-4	0.016	0.0	0.0					
PM-5	0.019	0.3	0.0					
PM-6	0.020	0.2	0.0					
WZ-1	0.022	0.0	0.0					

**Maximum 15-Minute-Average Concentrations** 

			*
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.055	0.8	0.0
PM-2	0.027	0.1	0.0
PM-3	0.019	0.5	0.0
PM-4	0.044	0.0	0.0
PM-5	0.026	0.5	0.0
PM-6	0.042	1.1	0.0
WZ-1	0.028	0.0	0.0

ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

• The dedicated mobile monitor (Langan) used a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.12 µg/m³.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

• The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

## Off-Site CAMP Station Relocation

• CAMP station WZ-1 was relocated to the eastern sidewalk of Peck Slip from 7:21am to 15:17pm during extension of the perimeter construction fence in the eastern part of the site.

## Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued sequentially between 15:10pm and 15:26pm at the conclusion of ground-intrusive activities.

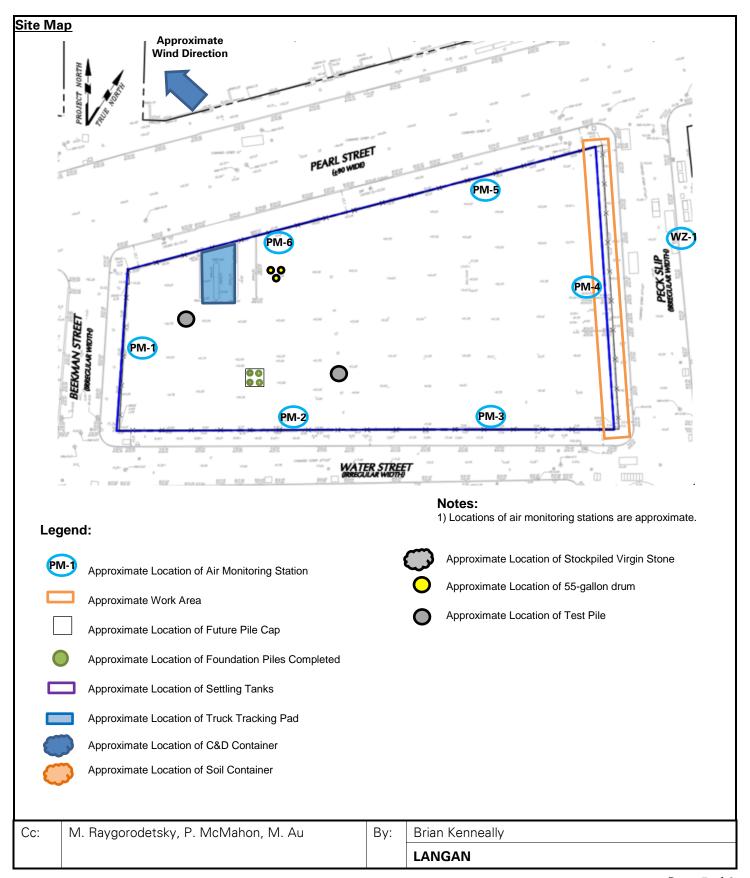
• Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.09 μg/m³.

			LANGAN				
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally				
•	CCJV will excavate test pits along the east bound obstructions prior to support-of-excavation soldie		the site to identify potential subsurface utilities and/or stallation.				
Anticipa	nticipated Activities						
•	VOC concentrations at each CAMP station range						



Page 5 of 6

## SITE OBSERVATION REPORT





Page 6 of 6

## SITE OBSERVATION REPORT

# Select Site Photographs:



Photo 1: View of the relocated perimeter construction fencing along the eastern boundary of the site (facing northeast).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

DATE: Tuesday, July 12, 2022

PROJECT:

Corporation 250 Water Street

**WEATHER:** 

Clear, 71.7 – 88.3 °F Wind: SE @ 1.8 - 6.4 mph

LOCATION: New York, NY TIME:

6:00 AM - 4:00 PM

**BCP SITE ID:** C231127 **MONITOR:** 

Maitland Robinson, Alex Nolan,

Gabriel Enriquez Castro

**EQUIPMENT:** 

PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

Day 36

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® Hand tools

Langan (Environmental) - Maitland Robinson, Alex Nolan, Gabriel Enriquez-Castro, Ava Sann

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - George Washburn New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

Komatsu 969

**CAT 374F** 

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- CCJV excavated three test pits in the northeastern part of the site to identify potential subsurface utilities and/or obstructions in preparation for soldier pile installation along the eastern boundary of the site.
  - o Excavated soil/fill was temporarily stockpiled on polyethylene sheeting adjacent to each test pit and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.
    - Test pit TP01 consisted of an about 8-foot-long by 6-foot-wide area and was excavated to a maximum depth of about 4 feet below grade surface (bgs).
    - Test pit TP02 consisted of an about 8-foot-long by 6-foot-wide area and was excavated to a maximum depth of about 2 feet bgs. A steam pipe was identified beneath the western sidewalk of Peck Slip. CCJV will re-excavate and survey the steam pipe at a later date.
    - Test pit TP03 consisted of an about 8-foot-long by 4-foot-wide area and was excavated to a maximum depth of about 4 feet bgs.
  - Excavation areas were temporarily backfilled with the previously excavated soil/fill originating from each test pit and were covered with polyethylene sheeting at the end of the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 2 of 6

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary						
Location Haledon, NJ Ha		ndustries, Inc. Iedon, NJ h Virgin Stone				
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)		
Today	0	0	0	0		
Total	7	161.51	0	0		
NYSDEC Approved:	1,000 cubic yards (CY)					

Material Export Summary					
Facility Name Location Type of	Location Brooklyn, NY		Clean Earth of North Jerse Kearny, NJ Hazardous Lead-Impacted		
Material				Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	
Today	0	0	0	0	
Total	2	25	14	280	

## **Sampling Activities**

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 3 of 6

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of PM10, VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.03 µg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Duny / troining Commontainers									
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)						
PM-1	0.019	0.0	0.0						
PM-2	0.022	0.1	0.0						
PM-3	0.019	0.6	0.0						
PM-4	0.026	0.0	0.0						
PM-5	0.016	0.7	0.0						
PM-6	0.024	0.4	0.0						
WZ-1	0.031	0.0	0.0						

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)					
PM-1	0.027	0.2	0.0					
PM-2	0.031	0.2	0.0					
PM-3	0.035	2.4	0.0					
PM-4	0.077	0.1	0.0					
PM-5	0.028	1.1	0.0					
PM-6	0.036	1.6	0.0					
WZ-1	0.041	0.0	0.0					

ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

• The dedicated mobile monitor (Langan) used a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.11 µg/m³.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 4 of 6

### SITE OBSERVATION REPORT

 The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

#### Equipment Troubleshooting:

- The DustTrak unit at perimeter CAMP station PM-5 was recalibrated at 8:03am due to persistent negative readings being recorded. PM10 concentrations returned to background conditions following equipment recalibration and data logging resumed at 8:04am. Fugitive dust or odors were not observed migrating the site during this time.
- The PID at perimeter CAMP station PM-6 was recalibrated at 8:30am due to persistent readings ranging between 1.0 and 1.8 ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). VOC concentrations returned on background conditions following equipment recalibration and data logging resumed at 8:31am.
- The PID at perimeter CAMP station PM-3 was recalibrated at 12:45pm due to persistent readings ranging between 1.0 and 2.8 ppm, which were inconsistent with readings on the handheld unit (0.0 ppm). Data logging resumed at 12:46pm and VOC concentrations returned to background conditions for approximately 4 minutes before spiking again. The PID at perimeter CAMP station PM-3 was replaced with a spare unit at 1:11pm. VOC concentrations returned to background conditions and data logging resumed at 1:12pm.

#### Off-Site CAMP Station Relocation

• CAMP station WZ-1 was relocated to the eastern sidewalk of Peck Slip from 7:09am to 2:21pm during excavation and backfill of test pits in the northeastern part of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. Additionally, areas of exposed soil were covered with polyethylene sheeting. CAMP stations were discontinued sequentially between 2:20pm and 2:21pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.04 μg/m³.
- VOC concentrations at each CAMP station were recorded at from 0.0 ppm.

#### **Anticipated Activities**

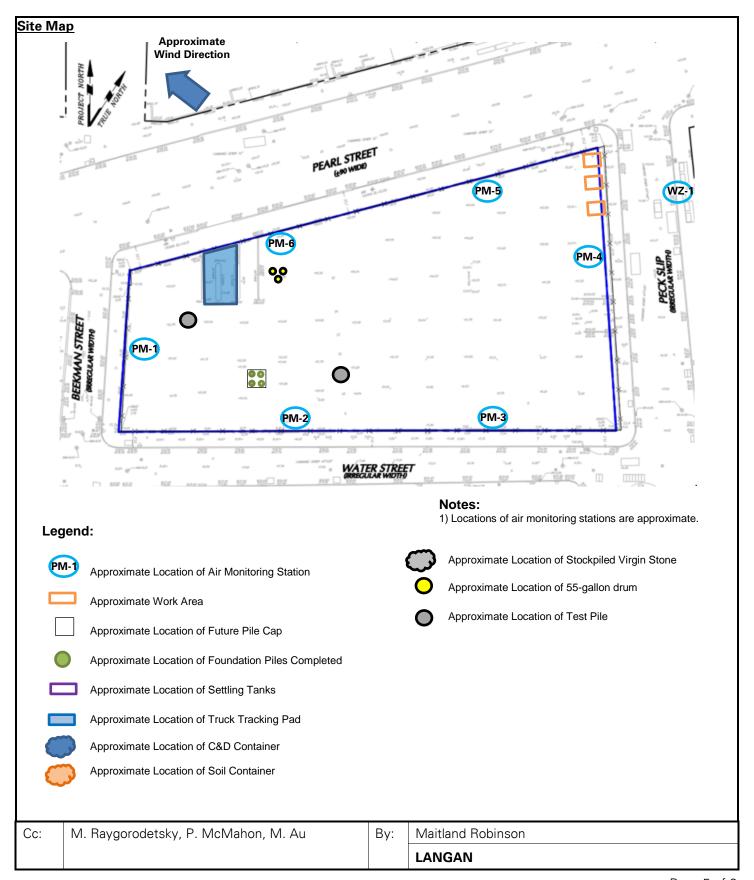
• CCJV will continue excavating test pits along the eastern boundary of the site to identify potential subsurface utilities and/or obstructions prior to support-of-excavation soldier pile installation.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 5 of 6

## SITE OBSERVATION REPORT

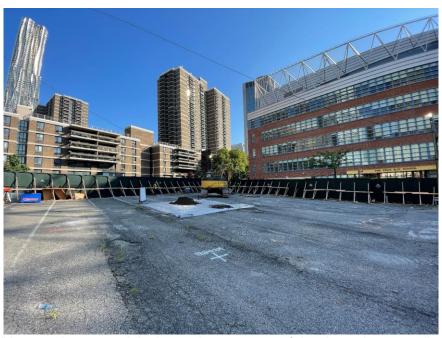




Page 6 of 6

## SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** View of CCJV excavating a test pit in the northeastern part of the site and temporarily stockpiling excavated soil/fill on polyethylene sheeting (facing northeast)



Photo 2: View of CCJV temporarily backfilling a test pit using previously excavated soil/fill (facing southeast).

L				LANGAN
	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE: Wednesday, July 13, 2022

PROJECT:

250 Water Street

Clear, 77.5 – 90.5 °F **WEATHER:** 

Wind: ENE @ 1.1 - 6.5 mph

LOCATION: New York, NY 6:00 AM - 4:00 PM

**BCP SITE ID:** C231127

Maitland Robinson, Brian **MONITOR:** Kenneally, Ava Sann

**EQUIPMENT:** 

MiniRAE 3000 PID

**Day 37** 

DustTrak II Jerome J405® Jerome J505® Hand tools **CAT 374F** 

Komatsu 969

Langan (Environmental) - Maitland Robinson, Brian Kenneally, Ava Sann

PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

**LendLease** (Construction Manager) – Marty Cohen

TIME:

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### Site Activities

- CCJV installed odor neutralizing sleeves along the perimeter construction fence along the eastern boundary of the site.
- CCJV excavated two test pits in the eastern part of the site to locate underground storage tanks (USTs), potential subsurface utilities and/or obstructions prior to support-of-excavation soldier pile installation along the eastern boundary of the site. Atmos® AC-645 dust/vapor suppressing foam was applied to areas of exposed soil as a proactive measure.
  - o Test pit **TP04** consisted of an about 8-foot-long by 6-foot-wide area and was excavated to a maximum depth of about 4 feet below grade surface (bgs).
    - Excavated soil/fill was temporarily stockpiled adjacent to the work area and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.
    - Subsurface utilities or obstructions were not identified and test pit TP04 was temporarily backfilled with the previously excavated soil/fill originating from the same location.
  - o Test pit TP05 consisted of an about 22-foot-long by 12-foot-wide area and was excavated to a maximum depth of about 4 feet bgs.
    - The previously documented USTs (and associated piping) were identified in the excavation area and were encased in concrete at a depth of approximately 4 feet bgs. Four vertical stand pipes were observed atop the concrete encasement, indicating the presence of up to four USTs. PID readings taken from the headspace above the standpipes ranged from 12 parts per million (ppm) to 245 ppm.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 2 of 8

# **SITE OBSERVATION REPORT**

				LANGAN		
Cc:	M. Raygorodetsk	xy, P. McMahon, M. Au	Ву:	Brian Kenneally		
			_			
	cover at the end	d of the work day.				
•	9 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					
		preparation for off-site disposal a				
				instrumental evidence (PID and Jerome® J505) of l-off containers were covered with plastic tarps in		
				and handheld Jerome® J505 mercury vapor analyzer,		
		staged in the central-east part of t	he site	and was screened for odors, staining, organic vapors,		
	•			asement was placed into two lined roll-off containers		



Page 3 of 8

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary					
Facility Name Location Type of Material	Ha	ndustries, Inc. ledon, NJ ich Virgin Stone	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	
Total	7	161.51	0	0	
NYSDEC Approved:	1,000 cubic yards (CY)				

Material Export Summary					
Facility Name Location Type of Material  Allocco Recycles  Brooklyn, N Construction Demolition (C&D		ooklyn, NY	Ko Hazardou	of North Jersey arny, NJ Lead-Impacted oil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	
Today	0	0	0	0	
Total	2	25	14	280	

## **Sampling Activities**

No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 4 of 8

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.06 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

#### Perimeter and Work Zone Concentrations

#### **Daily Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.015	0.0	0.0
PM-2	0.024	0.1	0.0
PM-3	0.025	0.1	0.0
PM-4	0.026	0.0	0.0
PM-5	0.016	0.3	0.0
PM-6	0.029	0.2	0.0
WZ-1	0.026	0.0	0.0

## **Maximum 15-Minute-Average Concentrations**

maximum to initiate riverage contentiations					
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)		
PM-1	0.027	0.2	0.0		
PM-2	*0.126	0.3	0.0		
PM-3	*0.141	1.1	0.0		
PM-4	0.060	0.0	0.0		
PM-5	0.020	0.5	0.0		
PM-6	*0.102	1.2	0.0		
WZ-1	0.058	0.0	0.0		

- ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter
- \* PM10 concentrations at perimeter stations PM-2, PM-3, and/or PM-6 exceeded the action level established
  in the CAMP between 12:13pm and 12:30pm due to an apparent off-site building fire in proximity to Water
  Street, where visible smoke was observed to be entering the site. The PM10 exceedances were not a result
  of ground-intrusive activities at the site.

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

• The dedicated mobile monitor (Langan) used a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.13 µg/m³.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 5 of 8

### SITE OBSERVATION REPORT

• The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

• CAMP station WZ-1 was relocated to the eastern sidewalk of Peck Slip from 7:02am to 3:19pm during excavation and backfill of test pits in the eastern part of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. Additionally, areas of exposed soil were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued sequentially between 3:17pm and 3:25pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.03 μg/m³.
- VOC concentrations at each CAMP station were recorded at from 0.0 ppm.

## Anticipated Activities

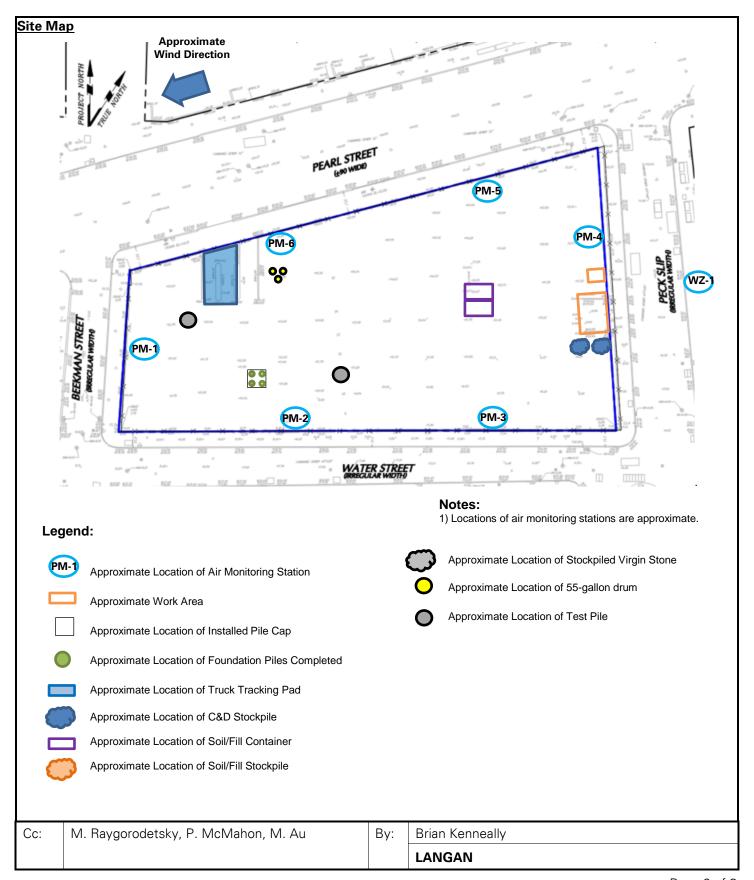
- CCJV will continue excavating test pits along the eastern boundary of the site to identify potential subsurface utilities and/or obstructions prior to support-of-excavation soldier pile installation.
- UBS will begin relocation of the perimeter construction fence along the northern boundary of the site along Pearl Street.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally



Langan PN: 170381202 Wednesday, July 13, 2022

Page 6 of 8





Langan PN: 170381202 Wednesday, July 13, 2022

Page 7 of 8

## SITE OBSERVATION REPORT

## Select Site Photographs:



Photo 1: CCJV excavating test pit TP04 in the eastern part of the site (facing south)



**Photo 2:** CCJV exposing the concrete-encased USTs and associated piping in the eastern part of the site (facing southeast)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Langan PN: 170381202 Wednesday, July 13, 2022

Page 8 of 8



**Photo 3:** View of exposed soil/fill covered with Atmos® AC-645 dust/vapor suppressing foam at the end of the work day (facing southeast).

				LANGAN
	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
ı				

Thursday, July 14, 2022



### SITE OBSERVATION REPORT

PROJECT No.: 170381202 CLIENT: 250 Seaport District, LLC DATE:

c/o The Howard Hughes
Corporation

Clear, 75.0 – 89.4 °F

WEATHER: Clear, 75.0 – 89.4 °F

WEATHER: Clear, 75.0 – 89.4 °F

Wind: ENE @ 0.9 – 7.0 mph

**LOCATION**: New York, NY

TIME:
6:00 AM – 3:45 PM

BCP SITE ID: C231127

MONITOR: Maitland Robinson, Brian Kenneally, Meera Mavroidis

EQUIPMENT:

MiniRAE 3000 PID

DustTrak II

Jerome J405®

Jerome J505®

Hand tools

CAT 374F

PRESENT AT SITE:

Day 38

Langan (Environmental) – Maitland Robinson, Brian Kenneally, Meera Mavroidis

LendLease (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra, George

Washburn

New York State Department of Environmental Conservation (NYSDEC) –

Rafi Alam

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

### Site Activities

Komatsu 969 Komatsu 228 Takeuchi TB290

- CCJV excavated two test pits in the eastern part of the site to locate underground storage tanks (USTs), potential subsurface utilities and/or obstructions prior to support-of-excavation soldier pile installation along the eastern boundary of the site.
  - Test pit TP02 consisted of an about 8-foot-long by 6-foot-wide area and was excavated to a maximum depth of about 2 feet bgs. The test pit was re-excavated to survey a previously identified steam line beneath the Peck Slip sidewalk.
    - Excavated soil/fill was temporarily stockpiled adjacent to the work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.
    - Following completion of the survey, test pit TP02 was temporarily backfilled with the previously excavated soil/fill originating from the same location.
  - Test pit **TP06** consisted of an about 5-foot-long by 5-foot-wide area and was excavated to a maximum depth of about 4 feet below grade surface (bgs).
    - Excavated soil/fill was temporarily stockpiled adjacent to the work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 2 of 8

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson  LANGAN
	cover at the end of the work day.		
•	southern portion of Pearl Street, immediately no remained in place along the northern boundary or	orth of f the si	ting, consisting of concrete jersey barriers, along the the site. The existing plywood construction fencing the during this work.  The exposed soil/fill to create a temporary overnight
•			construction demolition (C&D) debris, consisting of southeastern part of the site for future off-site disposal
			ere not identified and test pit TP06 was temporarily I soil/fill originating from the same location.



Page 3 of 8

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary						
Facility Name Location Type of Material	Ha	ndustries, Inc. ledon, NJ ich Virgin Stone	На	ndustries, Inc. Iedon, NJ h Virgin Stone		
Quantities	No. of Approx. Volume Loads (Tons)		No. of Loads	Approx. Volume (Tons)		
Today	0	0	0	0		
Total	7	161.51	0	0		
NYSDEC Approved:	1,000 cubic yards (CY)					

Material Export Summary					
Facility Name Location Type of Material	Bro Con	co Recycling ooklyn, NY estruction & on (C&D) Debris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	
Today	0	0	0	0	
Total	2	25	14	280	

## **Sampling Activities**

No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 4 of 8

### SITE OBSERVATION REPORT

## **CAMP** Activities

Langan performed air monitoring at the perimeter of the site and at the work zone at eight total locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of PM10, VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.03 µg/m³.
- Background concentrations of VOCs at each CAMP station ranged from 0.0 to 0.1 parts per million (ppm).

#### Perimeter and Work Zone Concentrations

#### **Daily Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.022	0.0	0.0
PM-2	0.022	0.1	0.0
PM-3	0.021	0.2	0.0
PM-4	0.024	0.0	0.0
PM-5	0.030	0.1	0.0
PM-6	0.028	0.2	0.0
WZ-1	0.031	0.0	0.0
WZ-2	N/A	N/A	N/A
WZ-3	0.018	0.2	0.0

### **Maximum 15-Minute-Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.034	0.0	0.0
PM-2	0.027	0.3	0.0
PM-3	0.026	0.5	0.0
PM-4	0.047	0.0	0.0
PM-5	0.036	0.3	0.0
PM-6	0.048	1.2	0.0
WZ-1	0.036	0.0	0.0
WZ-2	N/A	N/A	N/A
WZ-3	0.032	1.0	0.0

ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

• The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.13 µg/m³.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Maitland Robinson
			LANGAN



Page 5 of 8

### SITE OBSERVATION REPORT

 The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

#### **Equipment Troubleshooting**

• PM10 data were not recorded at CAMP station WZ-1 between 8:31am and 9:05am due to a low battery. Data logging resumed at 9:06am, after replacement of the depleted battery. No ground-intrusive activities were ongoing at this time, and fugitive dust was not observed migrating from the site.

### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the eastern sidewalk of Peck Slip from 7:02am to 2:56pm during excavation and backfill of test pits in the eastern part of the site.
- CAMP station WZ-3 was relocated to the northern sidewalk of Pearl Street from 7:47am to 8:00am and from 8:53am to 10:17am during excavation and backfill of a test pit in the northeastern part of site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 8:00am to 8:53am during excavation and backfill of a test pit in the southeastern part of site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. Additionally, areas of exposed soil were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued sequentially between 2:56pm and 3:16pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.03 μg/m³.
- VOC concentrations at each CAMP station were recorded at from 0.1 ppm.

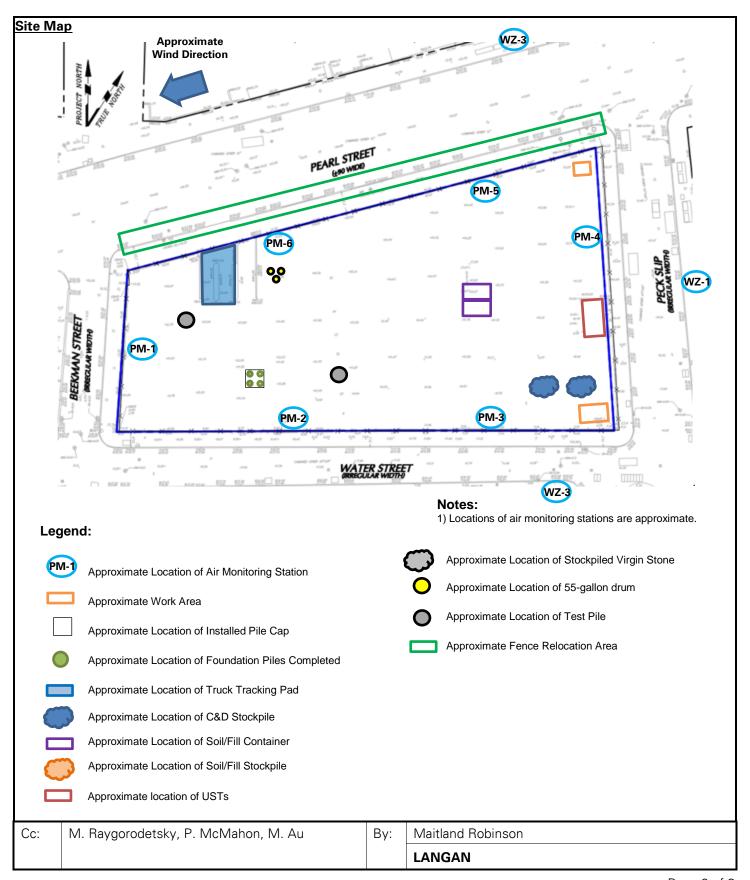
### **Anticipated Activities**

- Brookside Environmental, Inc. (Brookside) will pump and dispose of remaining contents within the USTs in the eastern part of site.
- CCJV will export previously stockpiled C&D to the Impact Reuse & Recovery Center (IRRC) facility, located in Lyndhurst, NJ.
- UBS will continue relocation of the perimeter construction fence along the northern boundary of the site along Pearl Street.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 6 of 8





Page 7 of 8

## SITE OBSERVATION REPORT

# Select Site Photographs:



Photo 1: CCJV excavating test pit TP06 in the southeastern part of the site (facing southeast)

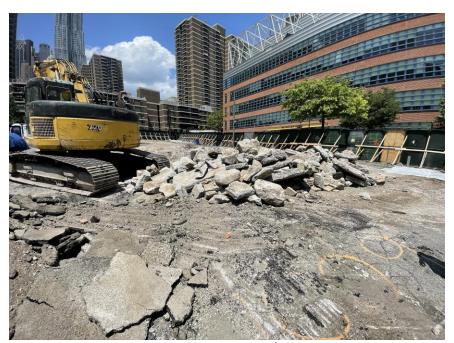


Photo 2: Stockpiled C&D prior to application of Atmos® AC-645 dust/vapor suppressing foam

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Maitland Robinson



Page 8 of 8



**Photo 3:** CCJV applying Atmos® AC-645 dust/vapor suppressing foam to areas of exposed soil/fill at the end of the work day (facing north)



Photo 4: Concrete jersey barriers installed along Pearl Street, immediately north of the site (facing east)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



### SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

250 Seaport District, LLC c/o The Howard Hughes

DATE:

Friday, July 15, 2022

PROJECT:

250 Water Street

**WEATHER:** 

Clear, 75.2 – 85.6 °F

Wind: SSE @ 1.2 – 6.4 mph

LOCATION:

New York, NY

TIME:

6:00 AM - 4:00 PM

**BCP SITE ID:** 

Hand tools **CAT 374F** 

Komatsu 969 Komatsu 228

Takeuchi TB290

C231127

**MONITOR:** 

Maitland Robinson, Brian Kenneally, Meera Mavroidis

**EQUIPMENT:** 

PRESENT AT SITE:

**Day 39** 

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505®

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - Jack Dettra, George

Langan (Environmental) - Maitland Robinson, Brian Kenneally, Meera Mavroidis LendLease (Construction Manager) - Marty Cohen

Washburn

Brookside Environmental, Inc. (Brookside) (UST Cleaning/Removal Contractor) - Oscar Pendao

**UBS** (Fence Installation Contractor)

New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

### **Site Activities**

- CCJV placed imported 1.5-inch clean bluestone in the northwestern part of the site to extend the existing truck tracking pad, located at the site entrance.
- Brookside used a vacuum truck to remove approximately 1,875 gallons of petroleum product/water mixture from four previously identified underground storage tanks (USTs) located in the eastern part of the site.
- UBS continued installation of the perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along Pearl Street. The existing plywood construction fencing remained in place along the northern boundary of the site during this work.
- CCJV applied Atmos® AC-645 dust/vapor suppressing foam to exposed soil/fill to create a temporary overnight cover at the end of the work day.

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Сс	M. Raygorodetsky, P. McMahon, M. Au	Bv:	Brian Kenneally



Page 2 of 6

### SITE OBSERVATION REPORT

### **Material Tracking**

- CCJV imported two truckloads (about 41.23 tons) of 1.5-inch clean bluestone from the Impact Reuse & Recovery Center (IRRC) facility, located in Lyndhurst, New Jersey.
- CCJV exported one truckload (about 20 cubic yards [CY]) of construction and demolition (C&D) debris, consisting of concrete and asphalt from the former site cover, to the IRRC facility, located in Lyndhurst, New Jersey.
- Brookside exported approximately 1,875 gallons of non-hazardous petroleum product/water mixture to the Advanced Waste and Water Technology facility, located in Farmingdale, New York.

Material Import Summary							
Facility Name Location Type of Material	Location Haledon, NJ 1.5/2.5-inch Virgin Stone		Location Haledon, NJ Haled		Industries, Inc. aledon, NJ ach Virgin Stone	Impact Lyndh	Reuse & Recovery or Materials Jersey City, ourst/Jersey City, NJ och Clean Bluestone
Quantities			No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	2	41.23	
Total	7	161.51	0	0	2	41.23	
NYSDEC Approved:		1,000 CY				400 CY	

Material Export Summary						
Facility Name Location Type of Material	Location Construction &		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	1	20	0	0
Total	1	25	1	20	14	280

### Sampling Activities

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 3 of 6

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor, VOCs, or PM10 that approached or exceeded the action level established by the community air monitoring plan (CAMP) (1.0  $\mu$ g/m³, 5.0 ppm, and 0.1 mg/m³, respectively).

### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Daily Average Concentrations										
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)							
PM-1	0.016	0.0	0.0							
PM-2	0.026	0.0	0.0							
PM-3	0.018	0.5	0.0							
PM-4	0.020	0.0	0.0							
PM-5	0.029	0.1	0.0							
PM-6	0.025	0.3	0.0							
WZ-1	0.025	0.0	0.0							
WZ-2	N/A	N/A	N/A							
WZ-3	N/A	N/A	N/A							

**Maximum 15-Minute-Average Concentrations** 

Maximum 13-ivilliate-Average concentrations								
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)					
CAMP Action Level	0.100 mg/m <sup>3</sup>	5.0 ppm	1.0 μg/m³					
PM-1	0.037	0.0	0.0					
PM-2	0.050	0.2	0.0					
PM-3	0.030	0.8	0.0					
PM-4	0.060	0.0	0.0					
PM-5	0.039	0.3	0.0					
PM-6	0.046	1.4	0.0					
WZ-1	0.044	0.0	0.0					
WZ-2	N/A	N/A	N/A					
WZ-3	N/A	N/A	N/A					

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

				LANGAN
Ī	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally



Page 4 of 6

### SITE OBSERVATION REPORT

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.10 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

• CAMP station WZ-1 was relocated to the eastern sidewalk of Peck Slip from 6:52am to 3:02pm during removal of UST contents in the eastern part of the site.

#### Equipment Troubleshooting

PM10 data were not recorded at CAMP station PM-2 between 10:21am and 10:22am during replacement of
the particulate monitoring unit. Data logging resumed at 10:23am, after the new unit was connected. No
ground-intrusive activities were ongoing and fugitive dust was not observed migrating off-site during this
time.

### Prior to CAMP Shutdown

Prior to discontinuing the CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and there were either no readings or no readings above background concentrations recorded. Additionally, areas of exposed soil were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued at 3:02pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.05 μg/m<sup>3</sup>.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

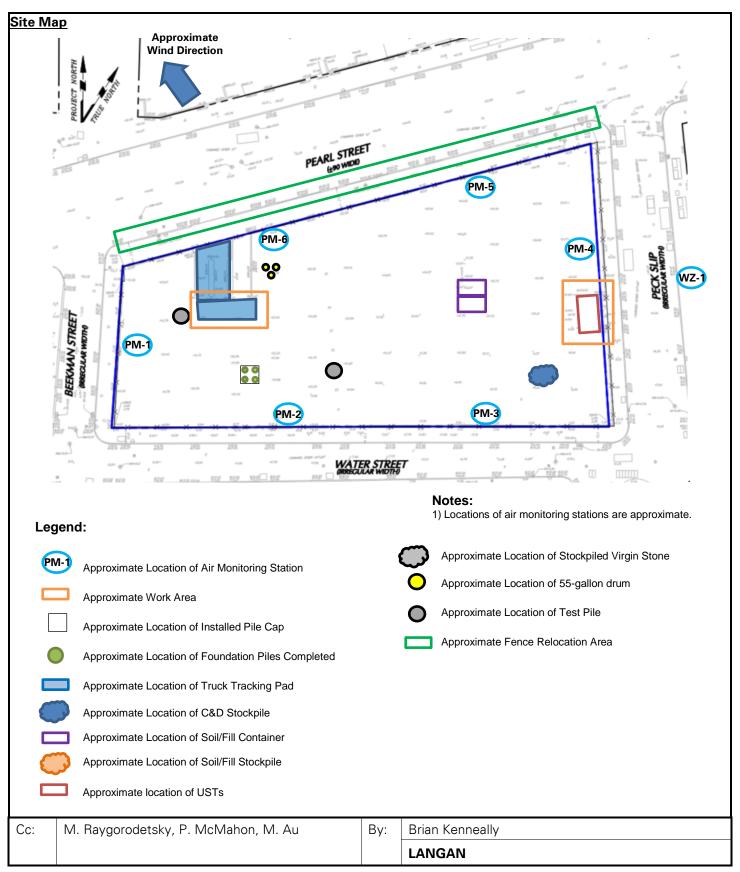
#### **Anticipated Activities**

- Brookside will continue removal of remaining contents within the four previously identified USTs in the eastern part of site.
- UBS will continue relocation of the perimeter construction fence along the northern boundary of the site, along the southern portion of Pearl Street.
- CCJV will excavate test pits along the northern boundary of the site to identify potential subsurface utilities and/or obstructions prior to support-of-excavation soldier pile installation.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 5 of 6





Page 6 of 6

## SITE OBSERVATION REPORT

## Select Site Photographs:



**Photo 1:** CCJV importing 1.5-inch clean bluestone to extend the truck tracking pad in the northwestern part of the site (facing east)



**Photo 2:** Brookside removing petroleum product/water mixture from a previously identified UST in the eastern part of the site (facing west)

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally



### SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE:

250 Water Street

Saturday, July 16, 2022

PROJECT:

**WEATHER:** 

Overcast/Clear, 75.9 – 84.9 °F Wind: SW @ 0.5 - 7.5 mph

LOCATION: New York, NY TIME: 7:00 AM - 5:30 PM

**BCP SITE ID:** C231127 **MONITOR:** Maitland Robinson, Eirene Pavlakis

**EQUIPMENT:** 

PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

Day 40

MiniRAE 3000 PID

Langan (Environmental) - Maitland Robinson, Eirene Pavlakis

DustTrak II Jerome J405® **LendLease** (Construction Manager)

Jerome J505®

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - Jack Dettra, George Washburn

Hand tools

**CAT 374F** Komatsu 969 Brookside Environmental, Inc. (Brookside) (UST Cleaning/Removal Contractor) - Oscar Pendao

Komatsu 228

New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

Takeuchi TB290

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

### **Site Activities**

- Brookside used a vacuum truck to remove approximately 350 gallons of petroleum product/water mixture from four previously identified underground storage tanks (USTs) located in the eastern part of the site.
- CCJV excavated four test pits along the northern boundary of the site to identify potential subsurface utilities and/or obstructions prior to support-of-excavation soldier pile installation.
  - o Test pits **TP07** and **TP08** each consisted of an about 4-foot-long by 4-foot-wide area within waste characterization cell WC04 and were excavated to a maximum depth of about 4 feet below grade surface (bgs).
    - Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. Three instantaneous mercury vapor readings were recorded above background concentrations upon screening of the excavated soil/fill:
      - Instantaneous mercury vapor concentrations of 0.46 µg/m<sup>3</sup> and 2.74 µg/m<sup>3</sup> were recorded upon screening of the excavated soil/fill from test pit TP07. Mercury vapor concentrations within the work zone and at perimeter air monitoring stations did not approach or exceed the action levels established in the community air monitoring plan (CAMP).
      - One instantaneous mercury vapor concentration of 1.27 µg/m³ was recorded upon screening of the excavated soil/fill from test pit TP08. Mercury vapor concentrations

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson



Page 2 of 7

### SITE OBSERVATION REPORT

within the work zone and at perimeter air monitoring stations did not approach or exceed the action levels established in the CAMP.

- Instantaneous mercury vapor concentrations were not detected above background concentrations at any perimeter or work zone CAMP station during this time, however, as a proactive measure and out of an abundance of caution, work was periodically halted and Mercon-X® was applied to the excavated material and exposed soil/fill.
- Subsurface utilities or obstructions were not identified and test pits TP07 and TP08 were temporarily backfilled with the previously excavated soil/fill originating from each respective test pit.
- o Test pits **TP09** and **TP10** each consisted of an about 2-foot-long by 2-foot-wide area within waste characterization cell WC05 and were excavated to a maximum depth of about 3.5 feet bgs.
  - Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. Three instantaneous mercury vapor readings were recorded above background concentrations upon screening of the excavated soil/fill:
    - One instantaneous mercury vapor concentration of 0.23 µg/m³ was recorded upon screening of the excavated soil/fill from test pit TP09. Mercury vapor concentrations within the work zone and at perimeter air monitoring stations did not approach or exceed the action levels established in the CAMP.
    - Instantaneous mercury vapor concentrations of 0.26 µg/m³ and 0.29 µg/m³ were recorded upon screening of the excavated soil/fill from test pit TP10. Mercury vapor concentrations within the work zone and at perimeter air monitoring stations did not approach or exceed the action levels established in the CAMP.
  - Instantaneous mercury vapor concentrations were not detected above background concentrations at any perimeter or work zone CAMP station during this time, however, as a proactive measure and out of an abundance of caution, work was periodically halted and Mercon-X® was applied to the excavated material and exposed soil/fill.
  - Subsurface utilities or obstructions were not identified and test pit TP09 was temporarily backfilled with the previously excavated soil/fill originating from the same location. Excavated soil/fill from test pit TP10 was covered with polyethylene sheeting in preparation for temporary backfill into the original location at a later date.
- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
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Page 3 of 7

## SITE OBSERVATION REPORT

## **Material Tracking**

• Brookside Environmental exported approximately 350 gallons of non-hazardous petroleum product/water mixture to the Advanced Waste and Water Technology facility, located in Farmingdale New York.

Material Import Summary							
Facility Name Location Type of Material	Location Haledon, NJ		Ha	Industries, Inc. aledon, NJ ch Virgin Stone	Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	0	0	
Total	7	161.51	0	0	2	41.23	
NYSDEC Approved:		1,000 CY				400 CY	

Material Export Summary						
Facility Name Location Type of Material	Location Construction &		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0
Total	1	25	1	20	14	280

## **Sampling Activities**

• No samples were collected.

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	Bv:	Maitland Robinson



Page 4 of 7

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor, VOCs, or PM10 that approached or exceeded the action level established by the community air monitoring plan (CAMP) (1.0  $\mu$ g/m³, 5.0 ppm, and 0.1 mg/m³, respectively).

### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.01 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Daily Average concentrations								
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)					
PM-1	0.027	0.0	0.0					
PM-2	0.041	0.1	0.0					
PM-3	0.026	0.2	0.0					
PM-4	0.028	0.2	0.0					
PM-5	0.033	0.0	0.0					
PM-6	0.033	0.3	0.0					
WZ-1	0.039	0.0	0.0					
WZ-2	N/A	N/A	N/A					
WZ-3	0.042	0.2	0.0					

**Maximum 15-Minute-Average Concentrations** 

Maximum 13-Minute-Average Concentrations								
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)					
CAMP Action Level	0.100 mg/m <sup>3</sup>	5.0 ppm	1.0 μg/m³					
PM-1	0.044	0.0	0.0					
PM-2	0.057	0.5	0.0					
PM-3	0.037	0.5	0.0					
PM-4	0.043	0.4	0.0					
PM-5	0.044	0.0	0.0					
PM-6	0.050	2.4	0.0					
WZ-1	0.046	0.0	0.0					
WZ-2	N/A	N/A	N/A					
WZ-3	0.053	2.4	0.0					

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

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 5 of 7

### SITE OBSERVATION REPORT

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used two handheld Jerome® J505 mercury vapor analyzers to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.15 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were at or below background concentrations throughout the work day.

#### **Equipment Troubleshooting**

• The PID at perimeter CAMP station PM-6 was recalibrated at 11:39am due to persistent readings of 2.4 ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). Data logging resumed at 11:41am and VOC concentrations returned to background conditions following equipment recalibration. Odors were not observed migrating off-site during this time.

### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the eastern sidewalk of Peck Slip from 7:56am to 2:26pm during removal of UST contents in the eastern part of the site.
- CAMP station WZ-3 was relocated to the northern sidewalk of Pearl Street from 9:36am to 3:59pm during excavation and backfill of test pits along northern boundary of site.

### Prior to CAMP Shutdown

Prior to discontinuing the CAMP, air quality at each CAMP station was verified using the handheld PID and Jerome® J505 mercury vapor analyzer and there were either no readings or no readings above background concentrations recorded. Additionally, areas of exposed soil were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations (with the exception of station WZ-1) were discontinued at 3:59pm at the conclusion of ground-intrusive activities. CAMP station WZ-1 was discontinued at 2:26pm at the conclusion of UST removal activities within 20 feet of the eastern fence line.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.02 μg/m³.
- VOC concentrations at each CAMP station ranged from 0.0 to 0.2 ppm.

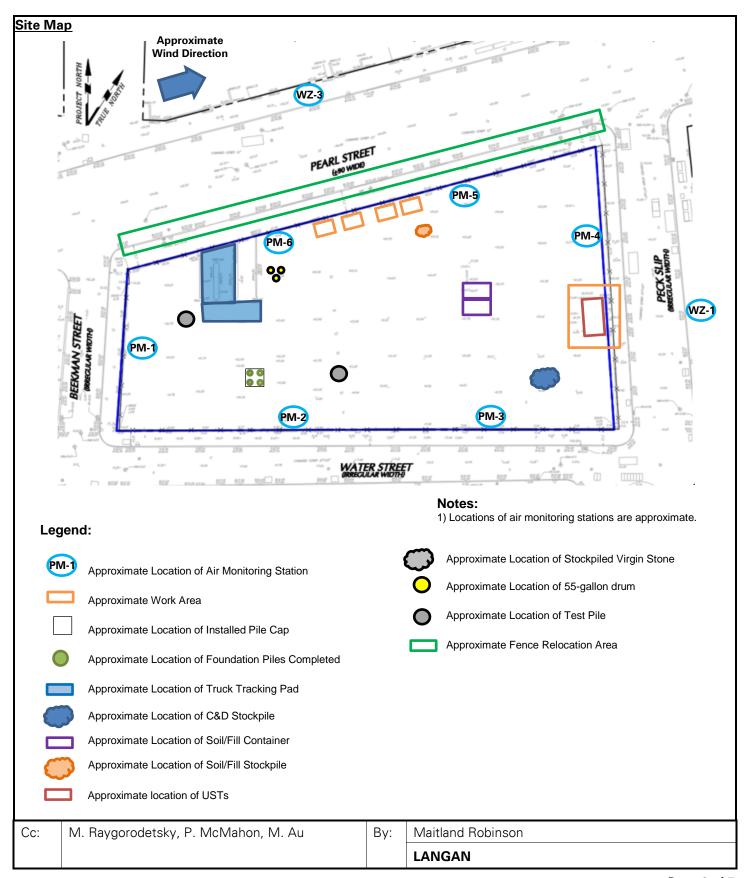
### Anticipated Activities

- CCJV will export previously stockpiled C&D to the Impact Reuse & Recovery Center (IRRC) facility, located in Lyndhurst, NJ.
- UBS will continue relocation of the perimeter construction fence along the northern boundary of the site, along the southern portion of Pearl Street.
- CCJV will begin installing support-of-excavation soldier piles along the northern boundary of the site.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 6 of 7





Page 7 of 7

## SITE OBSERVATION REPORT

## Select Site Photographs:



**Photo 1:** Brookside removing petroleum product/water mixture from a previously identified UST in the eastern part of the site (facing southwest)



Photo 2: CCJV applying Mercon-X® to excavated soil/fill from the northern perimeter of the site (facing south)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



### SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE:

Monday, July 18, 2022

PROJECT:

LOCATION:

250 Water Street

c/o The Howard Hughes

250 Seaport District, LLC

WEATHER:

Overcast/Rain, 77.3 – 87.9 °F

INEN.

Wind: N @ 0.7 – 8.9 mph

New York, NY

**TIME:** 6:00 AM – 5:00 PM

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**BCP SITE ID**: C231127

MONITOR: Brian Kenneally, Elsah Boak

**EQUIPMENT:** 

PRESENT AT SITE:

Day 41

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® Hand tools CAT 374F **Langan** (Environmental) – Brian Kenneally, Elsah Boak, Brayden Klein, Eddie Cai **LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra, George

Washburn

New York State Department of Environmental Conservation (NYSDEC) –

Rafi Alam

Komatsu 969

Komatsu 228 Takeuchi TB290

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

#### **Site Activities**

- CCJV excavated ten test pits along the northern boundary of the site to identify potential subsurface utilities and/or obstructions prior to support-of-excavation (SOE) soldier pile installation.
  - o Test pits **TP11, TP12, TP13, TP14, TP15** and **TP16** each consisted of an about 4-foot-long by 4-foot-wide area within waste characterization cell WC04 and were excavated to a maximum depth of about 4 feet below grade surface (bgs).
    - Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome<sup>®</sup> J505) of contamination was recorded.
    - Instantaneous mercury vapor concentrations were not detected above background concentrations at any perimeter or work zone CAMP station, however, as a proactive measure and out of an abundance of caution, Mercon-X® was periodically applied to the excavated material and exposed soil/fill.
    - Subsurface utilities or obstructions were not identified and test pits TP11 through TP16 were temporarily backfilled with the previously excavated soil/fill originating from each respective test pit.
  - o Test pits **TP17, TP18, TP19** and **TP20** each consisted of an about 4-foot-long by 4-foot-wide area within waste characterization cell WC05 and were excavated to a maximum depth of about 4 feet bgs.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 2 of 7

- Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively.
  - Maximum instantaneous mercury vapor concentrations ranging from 1.30 μg/m³ to 1.96 μg/m³ were recorded upon screening of the excavated soil/fill from test pits TP17 through TP20. Mercury vapor concentrations within the work zone and at perimeter air monitoring stations did not approach or exceed the action levels established in the community air monitoring plan (CAMP).
- Instantaneous mercury vapor concentrations were not detected above background concentrations at any perimeter or work zone CAMP station during this time, however, as a proactive measure and out of an abundance of caution, work was periodically halted and Mercon-X® was applied to the excavated material and exposed soil/fill.
- Subsurface utilities or obstructions were not identified and excavated soil/fill from test pits TP17 through TP20 was sprayed with Mercon-X® prior to being covered with polyethylene sheeting at the end of the work day. The stockpiled soil/fill originating from test pits TP17 through TP20 will be temporarily backfilled into their respective locations of origin at a later date.
- CCJV installed eight SOE soldier piles to a depth of about 36 feet bgs along the northern boundary of the site.
- CCJV stockpiled approximately 10 cubic yards (CY) of construction and demolition (C&D) debris, consisting of asphalt and concrete from the former site cover, in the north-central part of the site for future off-site disposal at a later date.
- Following application of Mercon-X®, CCJV covered all exposed soil/fill and C&D debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 3 of 7

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary								
Facility Name Location Type of Material	Haledon, NJ Ha			Haledon, NJ Haledon, NJ		Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)		
Today	0	0	0	0	0	0		
Total	7	161.51	0	0	2	41.23		
NYSDEC Approved:	1,000 CY					400 CY		

Material Export Summary							
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		Lynd Const Demol	RRC hurst, NJ truction & ition (C&D) Jebris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	
Today	0	0	0	0	0	0	
Total	1	25	1	20	14	280	

## **Sampling Activities**

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 4 of 7

### SITE OBSERVATION REPORT

### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor, VOCs, or PM10 that approached or exceeded the action level established by the CAMP (1.0  $\mu$ g/m³, 5.0 ppm, and 0.1 mg/m³, respectively).

### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Daily Average Concentrations											
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)								
PM-1	0.029	0.0	0.0								
PM-2	0.037	0.1	0.0								
PM-3	0.024	0.3	0.0								
PM-4	0.027	0.3	0.0								
PM-5	0.032	0.0	0.0								
PM-6	0.028	0.2	0.0								
WZ-1	0.040	0.0	0.0								
WZ-2	N/A	N/A	N/A								
WZ-3	N/A	N/A	N/A								

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
CAMP Action Level	0.100 mg/m³	5.0 ppm	1.0 μg/m³
PM-1	0.064	0.0	0.0
PM-2	0.074	0.4	0.0
PM-3	0.044	1.3	0.0
PM-4	0.049	1.4	0.0
PM-5	0.054	0.0	0.0
PM-6	0.064	1.0	0.1
WZ-1	0.071	0.0	0.1
WZ-2	N/A	N/A	N/A
WZ-3	N/A	N/A	N/A

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

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 5 of 7

### SITE OBSERVATION REPORT

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used two handheld Jerome® J505 mercury vapor analyzers to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.47 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations ranged from 0.0 ppm to 1.4 ppm.

### Off-Site CAMP Station Relocation

• CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:03am to 4:55pm during test pit excavation/backfill and soldier pile installation along the northern boundary of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing the CAMP, air quality at each CAMP station was verified using the handheld PID and Jerome® J505 mercury vapor analyzer and there were no readings above background concentrations recorded. Additionally, areas of exposed soil were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued sequentially between 4:50pm and 4:55pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.06 μg/m³.
- VOC concentrations at each CAMP station ranged from 0.0 to 0.1 ppm.

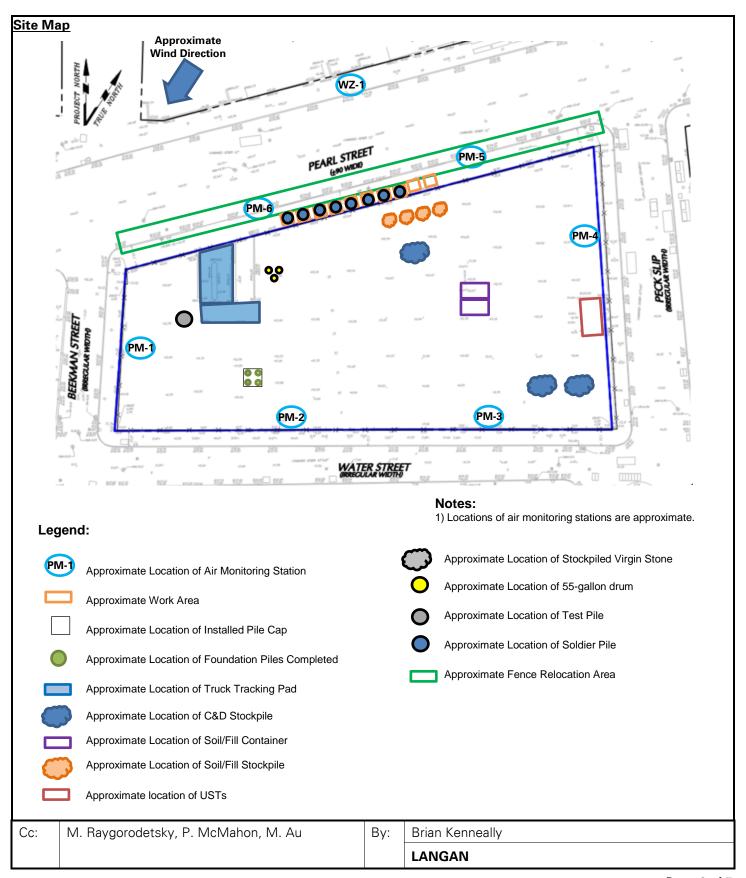
### **Anticipated Activities**

- CCJV will export previously stockpiled C&D debris to the Impact Reuse & Recovery Center (IRRC) facility, located in Lyndhurst, NJ.
- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the northern boundary of the site.
- CCJV will continue installing SOE soldier piles along the northern boundary of the site.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
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Page 6 of 7





Page 7 of 7

## SITE OBSERVATION REPORT

## Select Site Photographs:



Photo 1: CCJV installing a SOE soldier pile along the northern boundary of the site (facing northeast)



**Photo 2:** CCJV excavating a test pit along the northern boundary of the site and applying Mercon-X® to the excavated soil/fill (facing south)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



250 Water Street

New York, NY

C231127

### SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

250 Seaport District, LLC

c/o The Howard Hughes

Corporation

DATE: Tuesday, July 19, 2022

Clear, 82.2 – 94.6°F **WEATHER:** 

Wind: SW @ 1.1 – 8.0 mph

TIME: 6:00 AM - 4:00 PM

MONITOR: Elsah Boak, Maitland Robinson

**BCP SITE ID: EQUIPMENT:** 

PROJECT:

LOCATION:

PRESENT AT SITE:

**Day 42** 

MiniRAE 3000 PID DustTrak II

Jerome J405®

Jerome J505® Hand tools

**CAT 374F** Komatsu 969

Komatsu 228 Takeuchi TB290 Langan (Environmental/Geotechnical) - Elsah Boak, Maitland Robinson, Eddie Cai, Kevin Leong

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra, George

Washburn

**UBS** (Fence Construction)

New York State Department of Environmental Conservation (NYSDEC) -

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

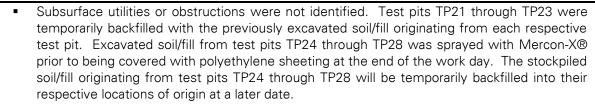
#### **Site Activities**

- CCJV temporarily backfilled test pits TP17 through TP20 using previously excavated soil/fill originating from each respective test pit.
- CCJV excavated eight test pits along the northern boundary of the site to identify potential subsurface utilities and/or obstructions prior to support-of-excavation (SOE) soldier pile installation.
  - o Test pits TP21, TP22, TP23, TP24, TP25, TP26, TP27 and TP28 each consisted of an about 5-footlong by 5-foot-wide area within waste characterization cells WC05 and WC07 and were excavated to a maximum depth of about 5 feet below grade surface (bgs).
    - Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively.
      - Instantaneous mercury vapor concentrations above background were recorded during screening of test pits TP21 through TP25. Maximum instantaneous mercury vapor concentrations ranged from 1.38 µg/m<sup>3</sup> to 2.73 µg/m<sup>3</sup>. Mercury vapor concentrations within the work zone and at perimeter air monitoring stations did not approach or exceed the action levels established in the community air monitoring plan (CAMP).
    - Instantaneous mercury vapor concentrations were not detected above background concentrations at any perimeter or work zone CAMP station, however, as a proactive measure and out of an abundance of caution, work was periodically halted and Mercon-X® was applied to the excavated material and exposed soil/fill.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
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Page 2 of 7



- CCJV stockpiled approximately 15 cubic yards (CY) of construction and demolition (C&D) debris, consisting of concrete and asphalt from the former site cover, in the northeastern part of the site for future off-site disposal at a later date.
- CCJV installed eight SOE soldier piles (SP9 through SP16) to a depth of about 36 feet bgs along the northern boundary of the site. No spoils were generated during installation of the soldier piles.
- CCJV continued installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the western sidewalk of Peck Slip. The existing plywood construction fencing remained in place along the eastern boundary of the site during this work.
- Following application of Mercon-X®, CCJV covered all exposed soil/fill and C&D debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 3 of 7

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- CCJV exported 2 truckloads (about 40 CY) of C&D debris, consisting of asphalt and concrete from the former site cover, to the Impact Reuse and Recovery Center (IRCC) facility, located in Lyndhurst, NJ.

Material Import Summary							
Facility Name Location Type of Material	н	Industries, Inc. aledon, NJ inch Virgin Stone	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	0	0	
Total	7	161.51	0	0	2	41.23	
NYSDEC Approved:		1,000 CY				400 CY	

Material Export Summary						
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	2	40	0	0
Total	1	25	3	60	14	280

### **Sampling Activities**

• No samples were collected.

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Elsah Boak



Page 4 of 7

### SITE OBSERVATION REPORT

### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor, VOCs, or PM10 that approached or exceeded the action level established by the CAMP (1.0  $\mu$ g/m³, 5.0 ppm, and 0.1 mg/m³, respectively).

### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.05 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Daily Average Concentrations							
Station ID Particulate (mg/m³)		Organic Vapor (ppm)	Mercury Vapor (µg/m³)				
PM-1	0.024	0.0	0.0				
PM-2	0.038	0.1	0.0				
PM-3	0.025	0.4	0.0				
PM-4	0.025	0.7	0.0				
PM-5	0.039	0.1	0.0				
PM-6	0.030	0.2	0.0				
WZ-1	0.038	0.0	0.0				
WZ-2	N/A	N/A	N/A				
WZ-3	N/A	N/A	N/A				

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)	
CAMP Action Level	0.100 mg/m³	5.0 ppm	1.0 μg/m³	
PM-1	0.034	0.1	0.0	
PM-2	0.047	0.2	0.0	
PM-3	0.035	0.6	0.0	
PM-4	0.036	2.4	0.0	
PM-5	0.059	0.1	0.0	
PM-6	0.050	0.5	0.1	
WZ-1	0.049	0.0	0.0	
WZ-2	N/A	N/A	N/A	
WZ-3	N/A	N/A	N/A	

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

				LANGAN
I	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak



Page 5 of 7

### SITE OBSERVATION REPORT

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used two handheld Jerome® J505 mercury vapor analyzers to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.36 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations ranged from 0.0 ppm to 1.6 ppm.

#### Off-Site CAMP Station Relocation

• CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:57am to 4:10pm during test pit excavation/backfill and soldier pile installation along the northern boundary of the site.

### **Equipment Troubleshooting**

- PM10 concentrations were intermittently not recorded at perimeter CAMP station PM-1 between 7:53am and 9:44am due to a connectivity issue with the telemetry system. Equipment troubleshooting was performed by replacing the CAMP station battery and the DustTrak unit, and data logging resumed at 9:45am.
  - o During this time, CCJV was in the process of excavating test pits and installing SOE soldier piles in the northeastern part of the site.
  - o Perimeter CAMP station PM-1 was located at least 150 feet away from the nearest work area and in an upwind direction.
  - o Fugitive dust was not observed migrating from the site during this times.

#### Prior to CAMP Shutdown

Prior to discontinuing the CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 4:10pm and 4:12pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.07 µg/m<sup>3</sup>.
- VOC concentrations at each CAMP station ranged from 0.0 to 0.2 ppm.

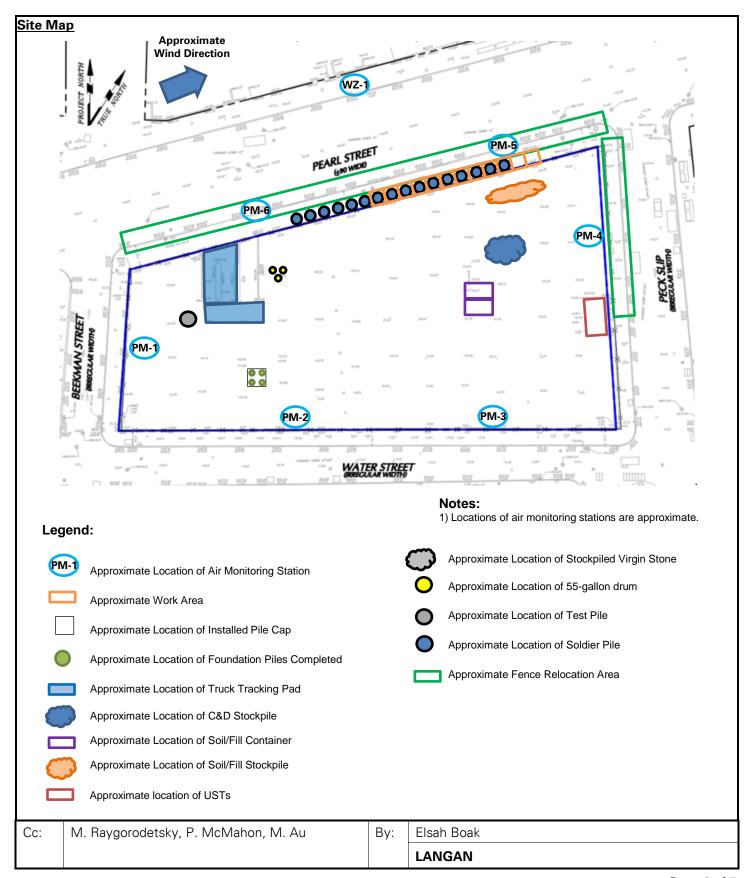
#### **Anticipated Activities**

- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the northern boundary of the site.
- CCJV will continue installing SOE soldier piles along the northern boundary of the site.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 6 of 7





Page 7 of 7

# SITE OBSERVATION REPORT

# Select Site Photographs:



Photo 1: CCJV excavating a test pit along the northern boundary of the site (facing south)



Photo 2: View of stockpiles and exposed soil/fill covered with polyethylene sheeting (facing northwest)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE:

Wednesday, July 20, 2022

PROJECT:

250 Water Street

**WEATHER:** 

Clear, 79.1 – 95.3 °F Wind: N @ 0.9 – 6.2 mph

LOCATION:

New York, NY

TIME:

6:00 AM - 5:45 PM

**BCP SITE ID:** 

C231127

**MONITOR:** 

Maitland Robinson, Brian

Kenneally, Lauren Roper

**EQUIPMENT:** 

PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

Day 43

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505®

Hand tools

Komatsu 969

Komatsu 228

Takeuchi TB290

**CAT 374F** 

Lauren Roper, Kevin Leong

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - Jack Dettra, George

Langan (Environmental/Geotechnical) - Maitland Robinson, Brian Kenneally,

Washburn

Eastern Environmental Solutions, Inc. (Eastern Environmental) (Drilling

Contractor) - Ernesto Santiago

New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

- CCJV temporarily backfilled test pits from soldier piles SP14 through SP19 using previously excavated soil/fill originating from each respective test pit.
- CCJV excavated an about 15-foot-long by 2-foot-wide area to a maximum depth of about 10 feet below grade surface (bgs) in the northeastern part of the site to locate potential subsurface utilities and/or obstructions prior to installation of support-of-excavation (SOE) soldier piles SP20, SP21, SP22, SP23, and SP24.
  - o Construction & demolition (C&D) debris, consisting of demolished concrete, was removed from the excavation area and stockpiled in the northeastern part of the site in preparation for off-site disposal.
  - o Excavated soil/fill was temporarily stockpiled adjacent to the work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or Jerome® J505) of contamination was recorded.
  - o Following removal of concrete obstructions and installation of SOE soldier piles SP20 and SP21, excavated soil/fill was temporarily backfilled into the area surrounding each respective soldier pile. Excavated soil/fill from SOE soldier piles SP22 through SP24 was sprayed with Mercon-X® prior to being covered with polyethylene sheeting at the end of the work day. The stockpiled soil/fill will be temporarily backfilled into the location of origin at a later date.
- CCJV excavated five test pits along the eastern boundary of the site for future installation of SOE soldier piles SP25, SP26, SP27, SP28, and SP29. Each test pit consisted of an about 3-foot-long by 2-foot-wide area and was excavated to a maximum depth of about 4 feet bgs.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 2 of 7

- Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.
- o Subsurface utilities or obstructions were not identified. Excavated soil/fill from SOE soldier piles SP25 through SP29 was sprayed with Mercon-X® prior to being covered with polyethylene sheeting at the end of the work day. The stockpiled soil/fill will be temporarily backfilled into each respective test pit at a later date.
- CCJV installed five SOE soldier piles (SP17 through SP21) to a depth of about 36 feet bgs along the northern boundary of the site. No spoils were generated during installation of the solider piles.
- CCJV demolished concrete surrounding the four previously identified underground storage tanks (USTs) using an excavator with a jackhammer attachment. Demolished concrete was stockpiled on and covered with polyethylene sheeting in the southeastern part of the site in preparation for off-site disposal.
- CCJV continued installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the western sidewalk of Peck Slip. The existing plywood construction fencing remained in place along the eastern boundary of the site during this work.
- Eastern Environmental used a Geoprobe® 7322DT direct-push drill rig with 4-foot-long Marco-Core® samplers to advance 13 soil borings to determine the extents of previously identified hazardous lead in the south-central part of the site. Langan observed and documented the work, screened the soil samples for environmental impacts, and collected soil samples:
  - Soil borings SB28\_N1, SB28\_NE1, SB28\_NE1a, SB28\_NW1, SB28\_NW1a, SB28\_N3, SB28\_NE3, SB28\_E3a, SB28\_NW3, SB28\_NW3a, SB28\_N4, SB28\_N5 and SB28\_N6 were advanced to a depth of about 12 feet bgs. Material was screened for odors, staining and organic vapors using a PID. A maximum PID reading of 32.7 parts per million (ppm) was observed in soil boring SB28\_NW3a at a depth of about 10 feet bgs.
  - o Soil borings were backfilled with clean drill cuttings and/or clean sand and patched with cold patch asphalt after sampling was completed.
- Eastern Environmental decommissioned remedial investigation (RI) monitoring wells MW25 and MW30 by placing hydrated bentonite chips within the bottom 10 feet of each well (ie. the screened interval).
- Following application of Mercon-X®, CCJV covered all exposed soil/fill and C&D debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 3 of 7

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary						
Facility Name Location Type of Material Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone		Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)
Today	0	0	0	0	0	0
Total	7	161.51	0	0	2	41.23
NYSDEC Approved:		1,000 CY				400 CY

Material Export Summary						
Facility Name Location Type of Material	ocation Construction & of Material Demolition (C&D) Debris		Lynd Const Demol	RRC hurst, NJ truction & ition (C&D) Jebris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0
Total	1	25	3	60	14	280

# **Sampling Activities**

- Langan collected four composite and/or grab soil samples for laboratory analysis of total and toxicity characteristic leaching procedure (TCLP) lead.
  - o An additional 49 soil samples were collected and placed on hold with the laboratory for potential analysis of total and TCLP lead pending receipt of the initial laboratory report.
  - Samples were relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)certified laboratory under standard chain-of-custody protocols.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



Page 4 of 7

## SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at nine total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor, VOCs, or PM10 that approached or exceeded the action level established by the community air monitoring plan (CAMP) (1.0  $\mu$ g/m³, 5.0 ppm, and 0.1 mg/m³, respectively).

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.03 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

#### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Dully Average Concentrations								
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)					
PM-1	0.044	0.0	0.0					
PM-2	0.059	0.0	0.0					
PM-3	0.036	0.1	0.0					
PM-4	0.048	0.5	0.0					
PM-5	0.049	0.1	0.0					
PM-6	0.050	0.1	0.0					
WZ-1	0.061	0.0	0.0					
WZ-2	0.052	0.0	0.0					
WZ-3	0.009	0.2	0.0					

## **Maximum 15-Minute-Average Concentrations**

Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
0.100 mg/m³	5.0 ppm	1.0 μg/m³
0.063	0.0	0.0
0.089	0.3	0.0
0.062	0.3	0.0
0.069	2.4	0.1
0.059	0.3	0.1
0.081	0.7	0.3
0.083	0.0	0.1
0.066	0.0	0.2
0.040	1.2	0.0
	0.100 mg/m³  0.063  0.089  0.062  0.069  0.059  0.081  0.083  0.066	Particulate (mg/m³)         Organic Vapor (ppm)           0.100 mg/m³         5.0 ppm           0.063         0.0           0.089         0.3           0.062         0.3           0.069         2.4           0.059         0.3           0.081         0.7           0.083         0.0           0.066         0.0

- $\bullet$ mg/m³ = milligrams per cubic meter  $\bullet$ ppm = parts per million  $\bullet$ µg/m³ = micrograms per cubic meter
  - Two instantaneous mercury vapor readings above background concentrations were recorded at offsite CAMP station WZ-2 (2.5 µg/m³ at 8:15am) and perimeter CAMP station PM-6 (4.4 µg/m³ at 2:17pm), respectively. There were no 15-minute average exceedances of the action level established

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			LANGAN



Page 5 of 7

#### SITE OBSERVATION REPORT

in the CAMP, however, out of an abundance of caution, work was temporarily halted and Mercon-X® was applied to all stockpiles and exposed soil/fill throughout the site. In each instance, mercury vapor concentrations returned background conditions immediately following the instantaneous reading and work resumed following application of Mercon-X®.

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.16 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were at or below background concentrations throughout the work day.

#### Equipment Troubleshooting

- The PID at off-site CAMP station WZ-1 was recalibrated at 8:58am due to persistent readings of 1.2 ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). Data logging resumed at 9:00am and VOC concentrations returned to background conditions following equipment recalibration. Odors were not observed migrating from the site during this time.
- The PID at perimeter CAMP station PM-4 was recalibrated at 11:39am and 12:33pm due to persistent readings ranging from 2.1 ppm to 2.7ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). Data logging resumed at 11:42am and 12:35pm, respectively, and VOC concentrations returned to background conditions in each instance. Odors were not observed migrating from the site during this time.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:12am to 5:01pm during excavation/backfill of test pits and installation of SOE soldier piles along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the southern sidewalk of Water Street from 7:04am to 12:50pm during advancement of soil borings in the south-central part of the site.
- CAMP station WZ-3 was relocated to the eastern sidewalk of Peck Slip from 8:09am to 5:01pm during excavation/backfill of test pits along the eastern boundary of the site.

## Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued at 5:01pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.02 µg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

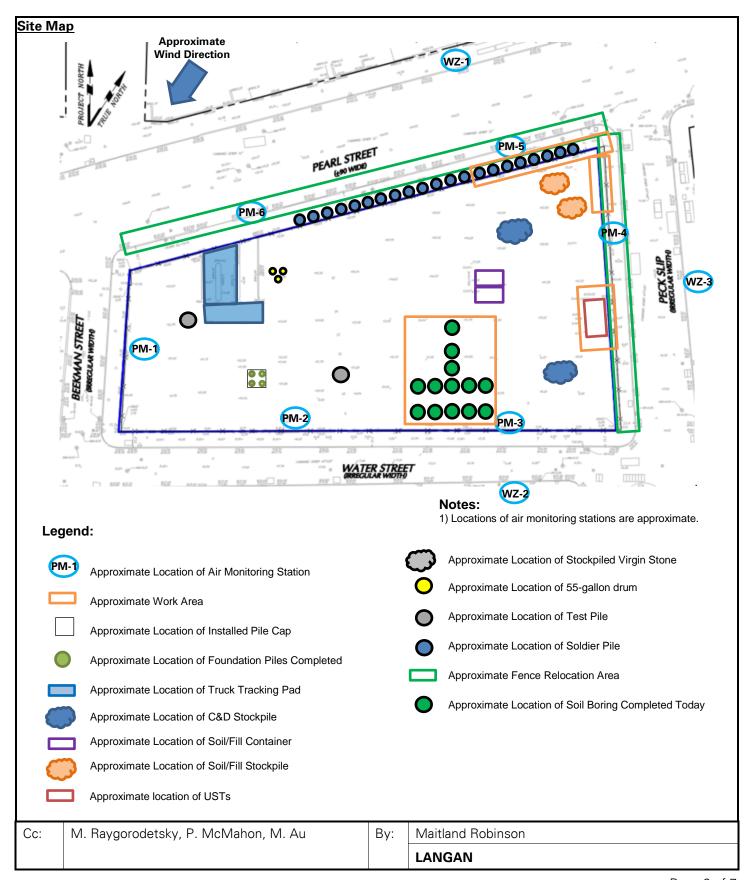
## **Anticipated Activities**

- CCJV will export previously stockpiled C&D debris to the Impact Reuse & Recovery Center (IRRC) facility, located in Lyndhurst, NJ.
- UBS will begin relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the eastern boundary of the site.
- CCJV will continue installation of SOE soldier piles along the eastern boundary of the site.
- CCJV will remove the four 550-gallon USTs in the eastern part of the site.

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Page 6 of 7





Page 7 of 7

# SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** Atmos® AC-645 dust/vapor suppressing foam applied to areas of exposed soil/fill in the northern part of the site (facing northeast)



**Photo 2:** Eastern Environmental advancing soil boring SB28\_N6 in the central part of the site (facing northwest)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202 250 Seaport District, LLC

CLIENT:

Corporation

DATE:

Thursday, July 21, 2022

PROJECT:

250 Water Street

**WEATHER:** 

Overcast/Rain, 81.1 – 89.0 °F Wind: WSW @ 0.8 - 4.9 mph

LOCATION: New York, NY TIME:

Langan (Environmental/Geotechnical) - Elsah Boak, Brian Kenneally, Lisa

6:00 AM - 4:30 PM

**BCP SITE ID:** C231127 **MONITOR:** Elsah Boak, Brian Kenneally

**EQUIPMENT:** 

PRESENT AT SITE:

c/o The Howard Hughes

Day 44

MiniRAE 3000 PID DustTrak II Jerome J405®

Cristiano, Ava Sann, Kevin Leong

Jerome J505® Hand tools

**LendLease** (Construction Manager) – Marty Cohen Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra, George

Washburn

**CAT 374F** Komatsu 969 New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

Komatsu 228

Takeuchi TB290

**UBS** (Fence Contractor)

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

- CCJV completed installation of support-of-excavation (SOE) soldier piles SP1 through SP21 along the northern boundary of the site.
- CCJV installed odor neutralizing sleeves on the interior of the perimeter construction fencing along the eastern and southern boundaries of the site.
- UBS installed additional plywood panels atop the perimeter construction fence along Pearl Street to extend the fence to a height of about 10 feet above grade surface.
- CCJV continued demolishing concrete surrounding the four previously identified underground storage tanks (USTs) using an excavator with a jackhammer attachment. The four USTs were removed from the excavation area in the eastern part of the site and were placed on and covered with polyethylene sheeting in the southeastern part of the site in preparation for additional cleaning activities at a later date.
  - Demolished concrete (about 55 cubic yards [CY]) was stockpiled on polyethylene sheeting. Atmos<sup>®</sup> AC-645 dust/vapor suppressing foam was applied to the demolished concrete and the stockpile was covered with polyethylene sheeting in preparation for off-site disposal.
  - o Following removal of the USTs, CCJV temporarily backfilled the excavation area using excavated soil/fill originating from the same location, which was previously contained within two roll-off containers located in the east-central part of the site.
- CCJV excavated two test pits along the eastern boundary of the site for future installation of SOE soldier piles SP30 and SP31. Each test pit consisted of an about 3-foot-long by 2-foot-wide area and was excavated to a maximum depth of about 4 feet below grade surface (bgs).

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally



Page 2 of 10

- Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.
- Subsurface utilities or obstructions were not identified. Excavated soil/fill from each test pit was covered with polyethylene sheeting and will be temporarily backfilled into each respective test pit following installation of SOE soldier piles SP30 and SP31.
- CCJV excavated an about 10-foot-long by 2-foot-wide area to a maximum depth of about 8 feet bgs in the northeastern part of the site to investigate the extents of a previously identified steam line.
  - o Construction & demolition (C&D) debris, consisting of demolished concrete, was removed from the excavation area and stockpiled in the northeastern part of the site in preparation for off-site disposal.
  - o Excavated soil/fill was temporarily stockpiled adjacent to the work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or Jerome® J505) of contamination was recorded. The excavated soil/fill was covered with polyethylene sheeting and will be temporarily backfilled into the excavation area at a later date.
- CCJV excavated an about 10-foot-long by 5-foot-wide area to a maximum depth of about 4 feet bgs in the north-central part of the site to facilitate demolition of a previously identified concrete foundation wall prior to SOE lagging installation between soldier piles SP01 through SP03.
  - o CCJV demolished the previously identified concrete foundation wall and demolished concrete was temporarily stockpiled adjacent to the excavation area in preparation for off-site disposal.
  - Excavated soil/fill was temporarily stockpiled adjacent to the excavation area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively.
    - A maximum instantaneous mercury vapor concentration of 63.1 μg/m³ was recorded at 3:36pm during screening of the excavated soil/fill using the handheld Jerome® J505 mercury vapor analyzer. Work was immediately halted across the site and Mercon-X® was applied to exposed soil/fill and stockpiles as a proactive measure and in advance of a 15-minute time-weighted average (TWA) exceedance of the action level established in the community air monitoring plan (CAMP).
    - During application of Mercon-X® across the excavation area, the 15-minute TWA action level for mercury vapor (1.00 μg/m³) was exceeded at perimeter CAMP station PM-6, which was located about 30 feet from the work area, for a duration of about 6 minutes (from 3:48pm to 3:53pm). The maximum 15-minute TWA concentration of mercury vapor was recorded at 1.08 μg/m³ and was caused by instantaneous mercury vapor concentrations ranging from 1.0 μg/m³ to 3.4 μg/m³. During this time, off-site CAMP station WZ-1 was located on the northern sidewalk of Pearl Street and no instantaneous mercury vapor concentrations above background conditions were recorded.
    - Following application of Mercon-X®, exposed soil/fill and stockpiles were covered with polyethylene sheeting. As an additional measure, Atmos® AC-645 odor/vapor suppressing foam was sprayed atop the polyethylene sheeting and mercury vapor concentrations returned to background conditions at approximately 4:00pm. Construction activities ceased for the

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
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Page 3 of 10

•	implementing shutdown protocol	ls (ie. c	AMP was implemented until at least 4:30pm before ollecting background readings at each CAMP station).  Byethylene sheeting and/or Atmos® AC-645 dust/vapor
	suppressing foam to create a temporary overnigh		
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
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Page 4 of 10

# SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary							
Facility Name Location Type of Material	Location Haledon, NJ		Ha	Industries, Inc. aledon, NJ ch Virgin Stone	Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	0	0	
Total	7	161.51	0	0	2	41.23	
NYSDEC Approved:		1,000	) CY			400 CY	

Material Export Summary						
Facility Name Location Type of Material	ocation Construction & Of Material Demolition (C&D) Debris		Lynd Const Demol	RRC hurst, NJ truction & ition (C&D) Jebris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0
Total	1	25	3	60	14	280

# **Sampling Activities**

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 5 of 10

## SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for VOCs that approached or exceeded the action level established by the CAMP (5.0 ppm).

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.07 µg/m<sup>3</sup>.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

#### Perimeter and Work Zone Concentrations

## **Daily Average Concentrations**

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (μg/m³)
PM-1	0.042	0.0	0.01
PM-2	0.055	0.0	0.01
PM-3	0.040	0.0	0.00
PM-4	0.050	0.2	0.00
PM-5	0.042	0.1	0.01
PM-6	0.048	0.1	0.05
WZ-1	0.055	0.0	0.01
WZ-2	0.026	0.0	0.01
WZ-3	N/A	N/A	N/A

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
Action Level	0.100 mg/m³	5.0 ppm	1.00 μg/m³
PM-1	0.069	0.0	0.05
PM-2	0.076	0.2	0.02
PM-3	0.052	0.2	0.00
PM-4	**0.143 @ 2:01pm	0.9	0.01
PM-5	0.056	0.3	0.02
PM-6	0.097	0.9	*1.08 @ 3:51pm
WZ-1	0.067	0.0	0.03
WZ-2	0.052	0.0	0.03
WZ-3	N/A	N/A	N/A

- ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter
- \* During application of Mercon-X® across the excavation area in the north-central part of the site, the 15-minute TWA action level for mercury vapor (1.00 μg/m³) was exceeded at perimeter CAMP station PM-6, which was located about 30 feet from the work area, for a duration of about 6 minutes (from 3:48pm to 3:53pm). Work was previously halted across the site at 3:36pm due to an instantaneous mercury vapor reading of 63.1 μg/m³,

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Page 6 of 10

#### SITE OBSERVATION REPORT

which was recorded during screening of excavated soil/fill using the handheld Jerome® J505 unit. The maximum 15-minute TWA concentration of mercury vapor was recorded at 1.08  $\mu$ g/m³ and was caused by instantaneous mercury vapor concentrations ranging from 1.0  $\mu$ g/m³ to 3.4  $\mu$ g/m³. During this time, off-site CAMP station WZ-1 was located on the northern sidewalk of Pearl Street and no instantaneous mercury vapor concentrations above background conditions were recorded.

- o Following application of Mercon-X®, exposed soil/fill and stockpiles were covered with polyethylene sheeting. As an additional measure, Atmos® AC-645 odor/vapor suppressing foam was sprayed atop the polyethylene sheeting and mercury vapor concentrations returned to background conditions at approximately 4:00pm. Construction activities ceased for the remainder of the work day, however, CAMP was implemented until at least 4:30pm before implementing shutdown protocols (ie. collecting background readings at each CAMP station).
- \*\* PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP (0.100 mg/m³) for a duration of about 15 minutes (1:53pm to 2:07pm). The maximum 15-minute TWA concentration of PM10 was recorded at 0.143 mg/m³ and was caused by instantaneous PM10 concentrations ranging from 0.153 mg/m³ to 1.022 mg/m³. Prior to the exceedance, CCJV was in the process of removing the asphalt cover along the eastern boundary of the site to facilitate excavation of a test pit for SOE soldier pile installation. Heavy rain was ongoing and fugitive dust was not observed migrating off-site during this time. PM10 concentrations returned to background conditions at 2:08pm.

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. With the exception of the 15-minute TWA mercury vapor exceedance previously described, instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.40 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. With the exception of ambient air screening during removal of the USTs, instantaneous VOC concentrations were at or below background concentrations throughout the work day. A maximum instantaneous VOC concentration of 8.1 ppm was observed at 9:26am during removal of the USTs in the eastern part of the site, however, VOC concentrations at the nearest perimeter CAMP station (PM-4) were not recorded above background conditions.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:07am to 4:44pm during excavation of test pits and installation of SOE soldier piles along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 7:16am to 4:44pm during excavation of test pits and demolition of concrete along the eastern boundary of the site.

## Prior to CAMP Shutdown

Prior to discontinuing CAMP and approximately 30 minutes after mercury vapor readings returned to background concentrations at perimeter CAMP station PM-6, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued at 4:44pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.08 µg/m<sup>3</sup>.
- VOC concentrations at each CAMP station ranged from 0.0 ppm to 0.1 ppm.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



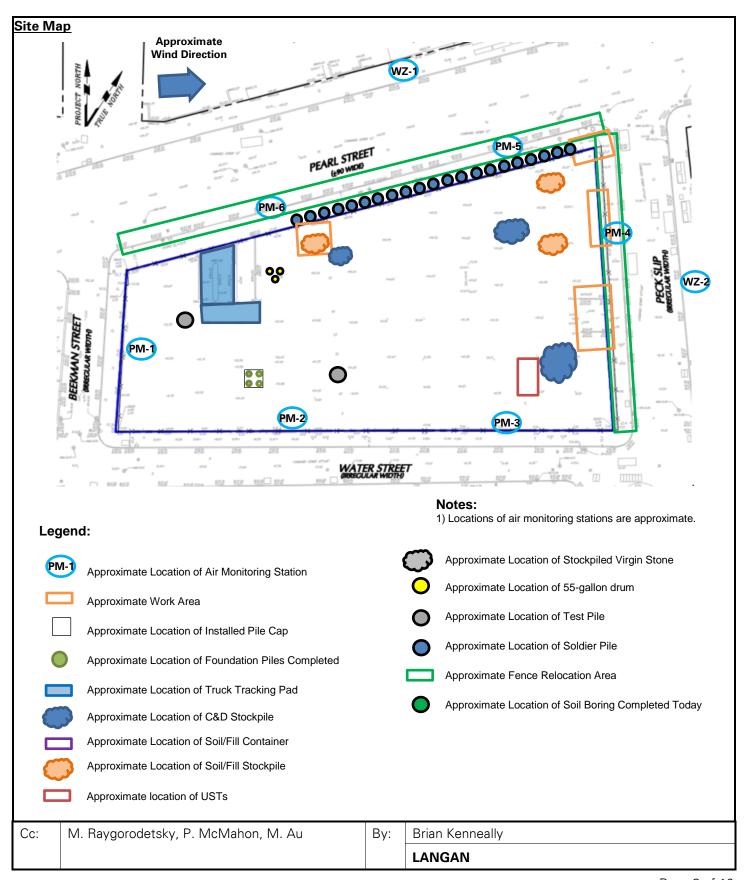
Page 7 of 10

## SITE OBSERVATION REPORT

# Anticipated Activities CCJV will export previously stockpiled C&D debris to the Impact Reuse & Recovery Center (IRRC) facility, located in Lyndhurst, NJ. UBS will begin relocation of the perimeter construction fence along the northern sidewalk of Water Street. CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the eastern boundary of the site. CCJV will continue installation of SOE soldier piles along the eastern boundary of the site. Cc: M. Raygorodetsky, P. McMahon, M. Au By: Brian Kenneally **LANGAN**



Page 8 of 10





Page 9 of 10

# SITE OBSERVATION REPORT

# Select Site Photographs:



Photo 1: CCJV installing SOE soldier piles along the northern boundary of the site (facing northwest)



**Photo 2:** View of the excavation area in the north-central part of the site covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam (facing northwest)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



Page 10 of 10



Photo 3: View of the four USTs placed on and covered with polyethylene sheeting (facing northwest)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
			LANGAN



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

DATE:

Friday, July 22, 2022

PROJECT:

250 Water Street

250 Seaport District, LLC c/o The Howard Hughes Corporation

**WEATHER:** 

Sunny, 82.2 – 97.8 °F Wind: N @ 0.6 - 7.2 mph

LOCATION:

New York, NY

TIME:

6:00 AM - 6:30 PM

MONITOR: Elsah Boak, Brian Kenneally

**BCP SITE ID:** 

C231127

**EQUIPMENT:** 

PRESENT AT SITE:

Day 45

MiniRAE 3000 PID DustTrak II

Jerome J405®

Jerome J505® Hand tools

**CAT 374F** Komatsu 969

Komatsu 228

Takeuchi TB290

Langan (Environmental/Geotechnical) - Elsah Boak, Brian Kenneally, Lisa Cristiano, Ava Sann, Kevin Leong

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - Jack Dettra, George

Washburn

New York State Department of Environmental Conservation (NYSDEC) –

Rafi Alam

**UBS** (Fence Contractor)

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

- CCJV installed support-of-excavation (SOE) soldier pile SP22 along the northern (Pearl Street) boundary of the site and SOE soldier piles SP32 through SP42 along the eastern (Peck Slip) boundary of the site.
- UBS installed additional plywood panels atop the perimeter construction fence along Pearl Street to extend the fence to a height of about 10 feet above grade surface.
- CCJV excavated nine test pits along the eastern boundary of the site for installation of SOE soldier piles SP42 through SP50. Each test pit consisted of an about 4-foot-long by 3-foot-wide area and was excavated to a maximum depth of about 4 feet below grade surface (bgs).
  - o Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.
  - o One additional underground storage tank (UST) was identified off-site beneath the Peck Slip sidewalk, immediately east of the site, during excavation of test pits along the eastern boundary of the site. The support-of-excavation system will be reconfigured in this area and decommissioning of the UST is anticipated to occur at a later date.
  - o Excavated soil/fill from each test pit was covered with polyethylene sheeting and will be temporarily backfilled into each respective test pit at a later date.
- CCJV excavated four about 20-foot-long by 6-foot-wide areas to a maximum depth of about 8 feet bgs in the north-central part of the site to facilitate demolition of a previously identified concrete foundation wall prior to SOE lagging installation between soldier piles SP01 through SP15.

	, ,	•	LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Elsah Boak



Page 2 of 8

- Excavated soil/fill was temporarily stockpiled adjacent to the excavation area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. A maximum instantaneous mercury vapor reading of 1.41 µg/m³ was recorded during screening of the excavated soil/fill.
- Mercon-X® and Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill

Cc:	M. Rayç	gorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
	MS			
•		covered all exposed soil/fill and C&D debrisessing foam to create a temporary overnig	-	lyethylene sheeting and/or Atmos® AC-645 dust/vapor at the end of the work day.
	0	areas were temporarily backfilled with Following application of Mercon-X® and	the ex Atmos®	sly identified concrete foundation wall, the excavation cavated soil/fill originating from the same location. AC-645 dust/vapor suppressing foam, exposed soil/fill a sheeting in preparation for re-excavation and SOE
	0			crete foundation wall and demolished concrete was a area in preparation for off-site disposal.

Cc:	M. Raygorodetsky, P. McMahon, M. Au		Elsah Boak
			LANGAN



Page 3 of 8

# SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- CCJV exported three truckloads (about 60 cubic yards [CY]) of construction and demolition (C&D) debris, consisting of demolished concrete, to the Impact Reuse and Recovery Center (IRRC) facility, located in Lyndhurst, NJ.

	Material Import Summary						
Facility Name Location Type of Material	Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone		Ha	Industries, Inc. aledon, NJ ch Virgin Stone	Impact Lyndl	t Reuse & Recovery or Materials Jersey City, nurst/Jersey City, NJ nch Clean Bluestone	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	0	0	
Total	7	161.51	0	0	2	41.23	
NYSDEC Approved:		1,000	CY		400 CY		

Material Export Summary						
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	3	60	0	0
Total	1	25	6	120	14	280

# Sampling Activities

• No samples were collected.

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(	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak



Page 4 of 8

## SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.0 µg/m³ and 5.0 ppm, respectively).

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.01 µg/m<sup>3</sup>.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

## Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.030	0.0	0.01
PM-2	0.042	0.0	0.01
PM-3	0.036	0.0	0.00
PM-4	0.045	0.7	0.01
PM-5	0.039	0.2	0.01
PM-6	0.041	0.0	0.02
WZ-1	0.042	0.0	0.01
WZ-2	0.031	0.0	0.01
WZ-3	N/A	N/A	N/A

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
Action Level	0.100 mg/m <sup>3</sup>	5.0 ppm	1.00 μg/m³
PM-1	0.053	0.0	0.03
PM-2	0.072	0.1	0.02
PM-3	0.052	0.1	0.01
PM-4	**0.173 @ 11:09am	4.1	0.09
PM-5	0.071	0.6	0.02
PM-6	*0.160 @ 9:49am	0.3	0.08
WZ-1	0.068	0.0	0.02
WZ-2	0.040	0.2	0.03
WZ-3	N/A	N/A	N/A

- $\bullet$ mg/m<sup>3</sup> = milligrams per cubic meter  $\bullet$ ppm = parts per million  $\bullet$ µg/m<sup>3</sup> = micrograms per cubic meter
- \* PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP (0.100 mg/m³) for a duration of about 15 minutes (9:36am to 9:50am). The maximum 15-minute TWA concentration of PM10 was recorded at 0.160 mg/m³ and was caused by instantaneous PM10 concentrations ranging from 0.798 mg/m³ to 1.208 mg/m³. No ground-intrusive activities were ongoing at the site and fugitive

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak
			LANGAN



Page 5 of 8

#### SITE OBSERVATION REPORT

dust was not observed migrating from the site during this time. The DustTrak unit at perimeter CAMP station PM-6 was recalibrated and instantaneous PM10 concentrations returned to background conditions at 9:37am.

- \*\* PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP (0.100 mg/m³) for a duration of about 5 minutes (11:05am to 11:09am). The maximum 15-minute TWA concentration of PM10 was recorded at 0.173 mg/m³ and was caused by instantaneous PM10 concentrations ranging from 0.118 mg/m³ to 0.691 mg/m³. The exceedances were caused by exhaust from a nearby generator, which resulted in PM10 and VOC concentrations above background conditions. Perimeter CAMP station PM-4 was relocated further downwind of the work area at 11:10am to avoid potential interference from the generator. During this time, off-site CAMP station WZ-2 was located on the eastern sidewalk of Peck Slip and no instantaneous PM10 concentrations above background conditions were recorded.
- PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP (0.100 mg/m³) for a duration of about 26 minutes (1:59pm to 2:24pm). The maximum 15-minute TWA concentration of PM10 was recorded at 0.158 mg/m³ and was caused by instantaneous PM10 concentrations ranging from 0.134 mg/m³ to 0.500 mg/m³. The exceedances were caused by concrete demolition activities in proximity to the perimeter CAMP station. Dust suppression was implemented by spraying the work area with water and PM10 concentrations returned to background conditions. During this time, off-site CAMP station WZ-2 was located on the eastern sidewalk of Peck Slip and no instantaneous PM10 concentrations above background conditions were recorded.

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.28 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:58am to 5:23pm during excavation/backfilling activities along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 6:58am to 5:23pm during installation of SOE soldier piles along the eastern boundary of the site.

#### **Equipment Troubleshooting**

• PM10 concentrations were not recorded at perimeter CAMP station PM-4 between 11:10am and 11:20am during relocation of the CAMP station further downwind of the work area to avoid interference from a nearby generator. Fugitive dust was not observed migrating from the site during this time and data logging resumed at 11:21am. During this time, off-site CAMP station WZ-2 was located on the eastern sidewalk of Peck Slip and no instantaneous PM10 concentrations above background conditions were recorded.

#### Prior to CAMP Shutdown

Prior to discontinuing the CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 5:22pm and 5:24pm at the conclusion of ground-intrusive activities.

Mercury vapor concentrations at each CAMP station were recorded at 0.00 μg/m³.

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Page 6 of 8

## SITE OBSERVATION REPORT

VOC concentrations at each CAMP station were recorded at 0.0 ppm.

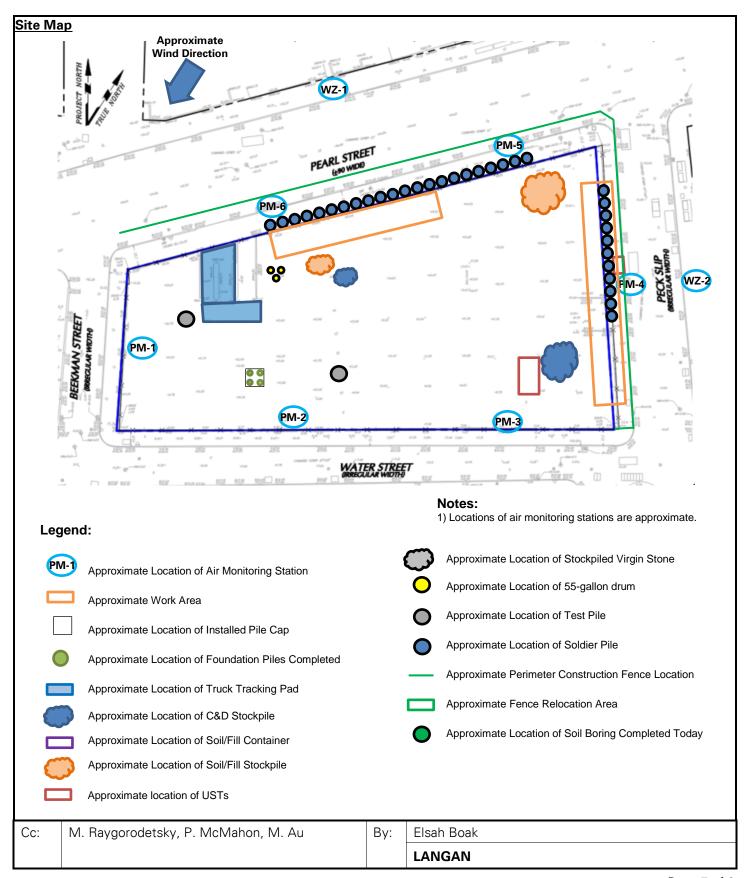
## **Anticipated Activities**

- UBS will begin relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the eastern boundary of the site.
- CCJV will continue installation of SOE soldier piles along the eastern boundary of the site.
- CCJV will install T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will install timber lagging between soldier piles.

		1	
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Page 7 of 8





Page 8 of 8

# SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** Exposed soil/fill and stockpiles covered with Atmos-AC-645 dust/vapor suppressing foam and/or polyethylene sheeting (facing northwest)

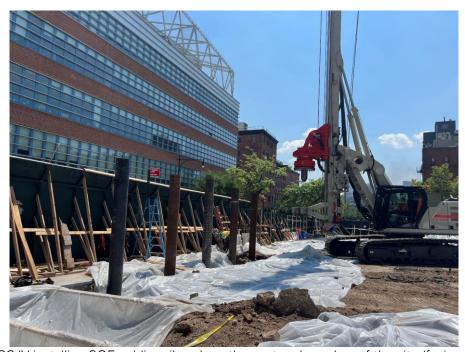


Photo 2: CCJV installing SOE soldier piles along the eastern boundary of the site (facing southeast)

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Elsah Boak

Day 46



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

DATE:

Saturday, July 23, 2022

PROJECT:

250 Water Street

New York, NY

C231127

250 Seaport District, LLC c/o The Howard Hughes

Corporation

Sunny, 90.5 – 97.8 °F **WEATHER:** Wind: N @ 1.2 – 6.2 mph

TIME:

8:00 AM - 6:45 PM

MONITOR: Elsah Boak, Yaskira Mota Diaz

**BCP SITE ID: EQUIPMENT:** 

Hand tools **CAT 374F** 

Komatsu 969

LOCATION:

MiniRAE 3000 PID

DustTrak II Jerome J405® Jerome J505® PRESENT AT SITE: Langan (Environmental/Geotechnical) - Elsah Boak, Yaskira Mota Diaz, Kevin

Leona

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - Jack Dettra, George

New York State Department of Environmental Conservation (NYSDEC) -

Rafi Alam

Komatsu 228 Takeuchi TB290

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## Site Activities

- CCJV installed support-of-excavation (SOE) soldier piles SP43 through SP49 along the eastern boundary of the site.
- CCJV excavated an about 50-foot-long by 8-foot-wide area to a maximum depth of about 8 feet below grade surface (bgs) in the north-central part of the site to facilitate SOE lagging installation between soldier piles SP01 through SP10.
  - o CCJV continued demolition of the previously identified concrete foundation wall and demolished concrete was temporarily stockpiled adjacent to the excavation area in preparation for off-site disposal.
  - o Excavated soil/fill was temporarily stockpiled adjacent to the excavation area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively.
    - Maximum instantaneous mercury vapor concentrations ranged from 1.07 µg/m³ (at 10:58am) to 10.03 µg/m³ (at 11:22am) during screening of excavated soil/fill. There were no fifteenminute time-weighted average (TWA) concentrations for mercury vapor that exceeded the action level established by the community air monitoring plan (CAMP) during the excavation activities.
  - o Mercon-X® and Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
  - o After excavation was complete, Mercon-X® and Atmos® AC-645 dust/vapor suppressing foam were applied to exposed soil/fill and stockpiles were covered with polyethylene sheeting.

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Page 2 of 7

- CCJV excavated an about 10-foot-long by 3-foot-wide area to a maximum depth of about 1.5 feet bgs in the west-central part of the site to create a temporary sump for the trucking pad at the entrance to the site. The excavated area was lined with polyethylene sheeting and was backfilled to surface grade using previously imported 1.5-inch clean stone.
  - Excavated soil/fill was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the excavation area and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or Jerome® J505) of contamination was recorded.
- CCJV installed T-brackets along the edges of soldier piles SP01 through SP07 to accommodate timber lagging installation.
- CCJV installed timber lagging between soldier piles SP01 through SP07 to a depth of about 5 feet bgs for SOE system installation along the northern site boundary.
- CCJV covered all exposed soil/fill and C&D debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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			LANGAN	
			F	Page 2 of 7



Page 3 of 7

# SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- CCJV exported three truckloads (about 60 cubic yards [CY]) of construction and demolition (C&D) debris, consisting of demolished concrete, to the Allocco Recycling facility, located in Brooklyn, NY.

Material Import Summary							
Facility Name Location Type of Material	Location Haledon, NJ		Ha	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0 0		0	0	0	0	
Total	Total 7 161.51		0	0	2	41.23	
NYSDEC Approved:		1,000	CY			400 CY	

Material Export Summary						
Facility Name Location Type of Material Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	3	60	0	0	0	0
Total	5	85	6	120	14	280

## **Sampling Activities**

• No samples were collected.

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Page 4 of 7

## SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that exceeded the action level established by the CAMP (1.00  $\mu$ g/m³ and 5.0 ppm, respectively).

## **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

## Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

	,		
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.014	0.0	0.01
PM-2	0.009	0.0	0.01
PM-3	0.031	1.3	0.00
PM-4	0.031	0.4	0.02
PM-5	0.042	0.0	0.02
PM-6	0.037	0.0	0.05
WZ-1	0.038	0.0	0.01
WZ-2	0.027	0.3	0.01
WZ-3	N/A	N/A	N/A

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
Action Level	0.100 mg/m <sup>3</sup>	5.0 ppm	1.00 μg/m³
PM-1	0.045	0.0	0.03
PM-2	0.036	0.2	0.03
PM-3	0.053	3.4	0.01
PM-4	0.042	3.9	0.03
PM-5	0.061	0.0	0.09
PM-6	*0.185 @ 11:01am	0.0	0.48
WZ-1	0.052	0.0	0.02
WZ-2	0.042	0.6	0.11
WZ-3	N/A	N/A	N/A

- $\bullet$ mg/m<sup>3</sup> = milligrams per cubic meter  $\bullet$ ppm = parts per million  $\bullet$ µg/m<sup>3</sup> = micrograms per cubic meter
- \* PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP (0.100 mg/m3) from 10:55am to 11:08am (14 minutes), 11:24am to 11:35am (12 minutes), and 12:56pm to 1:08pm (13 minutes). The exceedances were caused by welding activities in proximity to perimeter CAMP station PM-6 and were not a result of ground-intrusive activities at the site. In each instance, work was

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Page 5 of 7

# SITE OBSERVATION REPORT

temporarily halted and dust suppression was implemented by spraying the work area with water. Fugitive dust was not observed migrating from the site during each of these times.

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.79 µg/m³ (mercury vapor concentrations above background concentrations are associated with ambient air screening in the north-central part of the site during excavation activities in the mercury-impacted area).
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 9:19am to 5:27pm during excavation and demolition activities along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 9:51am to 5:11pm during installation of SOE soldier piles along the eastern boundary of the site.

## Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 5:07pm and 5:29pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station were recorded at 0.00 µg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

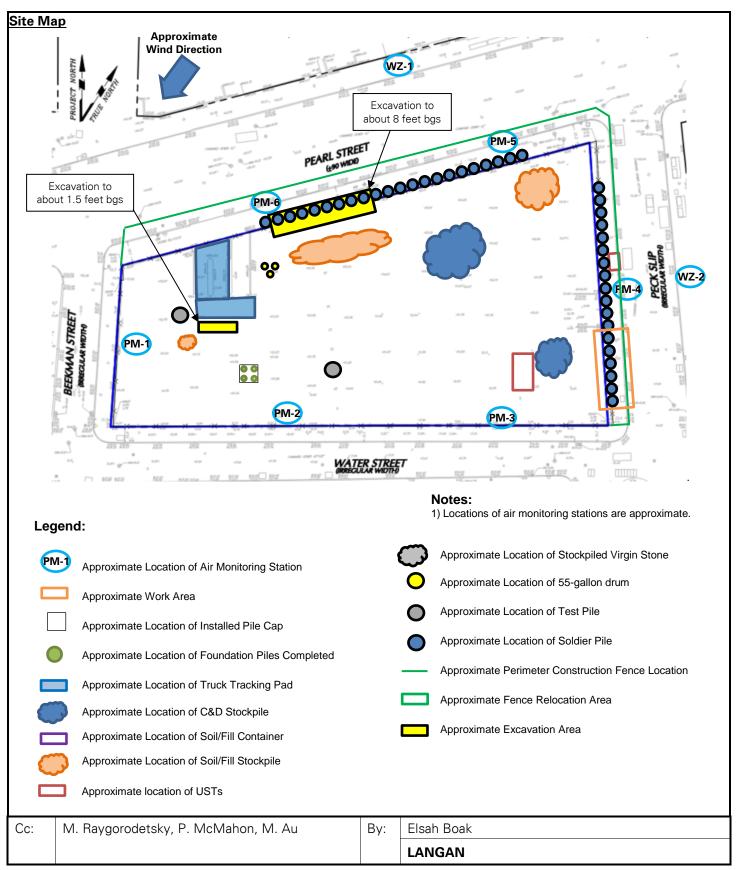
#### Anticipated Activities

- UBS will begin relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the southern boundary of the site.
- CCJV will continue installation of SOE soldier piles along the eastern boundary of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will excavate soil/fill in the mercury-impacted area for off-site disposal to the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.

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Page 6 of 7





Page 7 of 7

# SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** CCJV excavating soil/fill along the northern boundary of the site and actively applying Mercon-X® to the excavation area (facing southeast)



**Photo 2:** Installed timber lagging sprayed with Atmos® AC-645 dust/vapor suppressing foam and stockpiled soil/fill covered with polyethylene sheeting along the northern boundary of the site (facing east).

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**Day 47** 



## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE: Sunday, July 24, 2022

c/o The Howard Hughes

Sunny, 85.0 – 90.0 °F

PROJECT:

250 Water Street

**WEATHER:** 

Wind: WSW @ 0.0 - 12.0 mph

LOCATION:

New York, NY

TIME:

8:45 AM - 11:30 AM

**BCP SITE ID:** 

C231127

MONITOR: Farielle Brazier

**EQUIPMENT:** 

MiniRAE 3000 PID Jerome J505® Sullair 185

PRESENT AT SITE:

250 Seaport District, LLC

**Langan** (Environmental/Geotechnical) - Farielle Brazier

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor)

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

 CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover prior to resuming work on Monday, July 25, 2022.

Cc: M. Raygorodetsky, P. McMahon, M. Au

Farielle Brazier By:

**LANGAN** 



Page 2 of 5

# SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

Material Import Summary						
Facility Name Location Type of Material	n Haledon, NJ		Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)
Today	0 0		0	0	0	0
Total	7 161.51		0	0	2	41.23
NYSDEC Approved:		1,000	) CY			400 CY

Material Export Summary						
Facility Name Location Type of Material Debris  Allocco Recycling Brooklyn, NY Construction & Demolition (C&D)		Lynd Const Demol	RRC hurst, NJ truction & ition (C&D) Jebris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0
Total	5	85	6	120	14	280

# **Sampling Activities**

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Farielle Brazier
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Page 3 of 5

## SITE OBSERVATION REPORT

## **CAMP Activities**

Community Air Monitoring Plan (CAMP) was not implemented, as there were no ground-intrusive activities ongoing at the site. Langan performed ambient air monitoring across the site using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer during reinstallation of the temporary overnight cover.

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00  $\mu$ g/m³ to 0.13  $\mu$ g/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

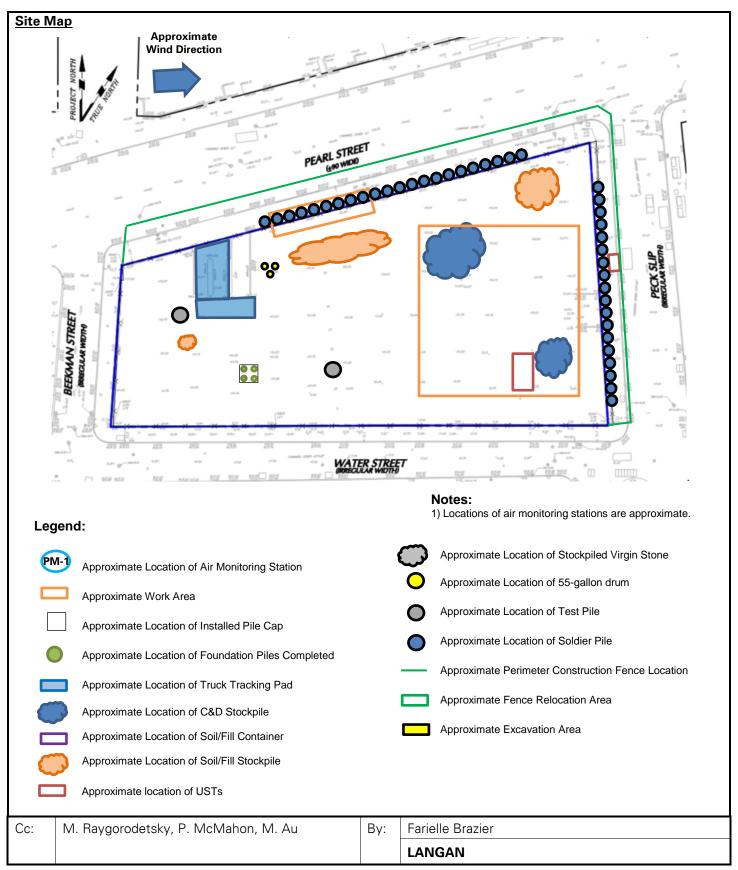
## **Anticipated Activities**

- UBS will begin relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the southern boundary of the site.
- CCJV will continue installation of SOE soldier piles along the eastern boundary of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will excavate soil/fill in the mercury-impacted area for off-site disposal to the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Farielle Brazier
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Page 4 of 5





Page 5 of 5

# SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** Atmos® AC-645 dust/vapor suppressing foam re-applied to exposed soil/fill along the northern boundary of the site (facing northwest).

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## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE:

Monday, July 25, 2022

PROJECT:

250 Water Street

**WEATHER:** 

Overcast/Rain, 78.9 – 88.3 °F Wind: WSW @ 0.4 – 7.7 mph

LOCATION: New York, NY

**TIME:** 6:00 AM – 5:30 PM

BCP SITE ID: C231127

MONITOR: Brian Kenneally, Maitland Robinson

**EQUIPMENT**:

PRESENT AT SITE:

**Day 48** 

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® **Langan** (Environmental/Geotechnical) – Brian Kenneally, Maitland Robinson,

Kevin Leong, Eddie Cai

250 Seaport District, LLC c/o The Howard Hughes

LendLease (Construction Manager) - Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - Jack Dettra, George

Washburn

New York State Department of Environmental Conservation (NYSDEC) -

Marnie Chancey

Komatsu 969 Komatsu 228 Takeuchi TB290

Hand tools

**CAT 374F** 

Brookside Environmental (Brookside) – Oscar Perrero Excel Environmental Resources, Inc. (Excel) – Abby Lodge

Clean Earth, Inc. - Elliot Estevez

AKRF Inc. (AKRF) (Archaeologist) - Elizabeth Meade

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

- CCJV completed installation of support-of-excavation (SOE) soldier piles SP39 through SP49 along the eastern boundary of the site.
- CCJV excavated an about 35-foot-long by 5-foot-wide area to a maximum depth of about 5 feet below grade surface (bgs) in the north-central part of the site to facilitate SOE lagging installation between soldier piles SP16 through SP21.
  - o Excavated soil/fill was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the excavation area and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or Jerome<sup>®</sup> J505) of contamination was recorded.
- CCJV installed T-brackets along the edges of soldier piles SP08 through SP16 to accommodate timber lagging installation.
- CCJV installed timber lagging between soldier piles SP08 through SP16 to a depth of about 5 feet bgs for SOE system installation along the northern site boundary.
- CCJV excavated an about 55-foot-long by 15-foot-wide area to a maximum depth of about 5 feet bgs for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cell WC05). Excavated soil/fill was either live-loaded into tri-axle dump trucks or

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			LANGAN



Page 2 of 9

## SITE OBSERVATION REPORT

temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.

- Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. A maximum instantaneous mercury vapor concentration of 0.64 μg/m<sup>3</sup> was recorded during screening of excavated soil/fill.
- o Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- o After excavation was complete, Mercon-X® and Atmos® AC-645 dust/vapor suppressing foam were applied to exposed soil/fill and stockpiles were covered with polyethylene sheeting.
- CCJV demolished concrete from the former sidewalk in the northeastern part of the site using an excavator with a hydraulic hammer attachment. Demolished concrete (about 20 cubic yards [CY]) was stockpiled in the northeastern part of the site in preparation for off-site disposal as construction and demolition (C&D) debris.
  - o Following removal of the demolished concrete, the excavation area was temporarily backfilled with previously excavated soil/fill originating from the same location.
- Brookside removed residual sludge and/or petroleum product/water mixture from four previously removed underground storage tanks (USTs) using absorbent pads. Spent absorbent pads were containerized in two, sealed 55-gallon steel drums for off-site disposal at the Clean Water of New York facility, located in Staten Island, NY.
- CCJV covered all exposed soil/fill and C&D debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
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Page 3 of 9

# SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- CCJV exported 18 truckloads (about 360 CY) of non-hazardous soil/fill from waste characterization cell WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- Brookside exported two 55-gallon drums containing spent absorbent pads and residual sludge and/or petroleum product/water mixture for off-site disposal at the Clean Water of New York facility, located in Staten Island, NY.

Material Import Summary							
Facility Name Location Type of Material	Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone		Location Haledon, NJ Haledon, NJ		aledon, NJ	Impact Lyndl	t Reuse & Recovery or Materials Jersey City, nurst/Jersey City, NJ nch Clean Bluestone
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	0	0	
Total	7	161.51	0	0	2	41.23	
NYSDEC Approved:		1,000		400 CY			

Material Export Summary								
Facility Name Location Type of Material	Location Construction & pe of Material Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0	18	360
Total	5	85	6	120	14	280	18	360

# **Sampling Activities**

• No samples were collected.

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Page 4 of 9

## SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at the work zone at nine total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the Community Air Monitoring Plan (CAMP) (1.00  $\mu$ g/m³ and 5.0 ppm, respectively).

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from at 0.00 to 0.03 µg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)				
PM-1	0.038	0.0	0.01				
PM-2	0.039	0.0	0.01				
PM-3	0.044	0.1	0.00				
PM-4	0.028	0.3	0.02				
PM-5	0.043	0.0	0.02				
PM-6	0.040	0.0	0.04				
WZ-1	0.050	0.0	0.02				
WZ-2	0.034	0.0	0.00				
WZ-3	0.039	0.1	0.00				

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
Action Level	0.100 mg/m <sup>3</sup>	5.0 ppm	1.00 μg/m³
PM-1	0.077	0.0	0.03
PM-2	0.064	0.1	0.03
PM-3	0.075	0.3	0.01
PM-4	0.063	0.4	0.07
PM-5	*0.281 at 2:20pm	0.3	0.05
PM-6	0.077	0.0	0.12
WZ-1	0.083	0.0	0.05
WZ-2	0.051	0.0	0.00
WZ-3	0.076	0.3	0.12

- $\bullet$ mg/m³ = milligrams per cubic meter  $\bullet$ ppm = parts per million  $\bullet$ µg/m³ = micrograms per cubic meter
- \* PM10 concentrations at perimeter CAMP station PM-5 exceeded the action level established in the CAMP (0.100 mg/m3) from 2:06pm to 2:32pm (26 minutes). The exceedance was caused by welding activities in proximity to perimeter CAMP station PM-5 and was not a result of ground-intrusive activities at the site. Work

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Page 5 of 9

## SITE OBSERVATION REPORT

was temporarily halted and dust suppression was implemented by spraying the work area with water. Fugitive dust was not observed migrating from the site during this time.

• A Jerome® J405 mercury vapor analyzer was used at off-site CAMP station WZ-3 throughout the work day due to a malfunction of two Jerome® J505 units which required maintenance by the equipment manufacturer. Four additional Jerome® J505 units are anticipated to be delivered to the site on July 26, 2022.

## Equipment Troubleshooting

- PM10 concentrations were not recorded at perimeter CAMP station PM-4 from 11:14am to 11:26am due to a malfunction with the remote telemetry system. Work was halted and troubleshooting measures were implemented to restart the system. Fugitive dust was not observed migrating from the site during this time and data logging resumed at 11:27am.
- PM10 concentrations were not recorded at perimeter CAMP station PM-6 from 1:53pm to 1:58pm due to a
  depleted battery. During this time, CCJV was in the process of welding T-brackets to the edges of previously
  installed soldier piles along the northern boundary of the site. Data logging resumed at 1:59pm following
  replacement of the battery at perimeter CAMP station PM-6. Fugitive dust was not observed migrating from
  the site during this time.

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.74 µg/m³ (mercury vapor concentrations above background concentrations are associated with ambient air screening in the north-central part of the site during excavation activities in the mercury-impacted area).
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:20am to 4:48pm during excavation and demolition activities along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 7:10am to 5:18pm during excavation activities and installation of SOE soldier piles along the eastern boundary of the site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 7:44am to 5:13pm during installation of SOE soldier piles along the eastern boundary of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 4:48pm and 5:44pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.01 μg/m³.
- VOC concentrations at each CAMP station ranged from 0.0 to 0.4 ppm.

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally



Page 6 of 9

## SITE OBSERVATION REPORT

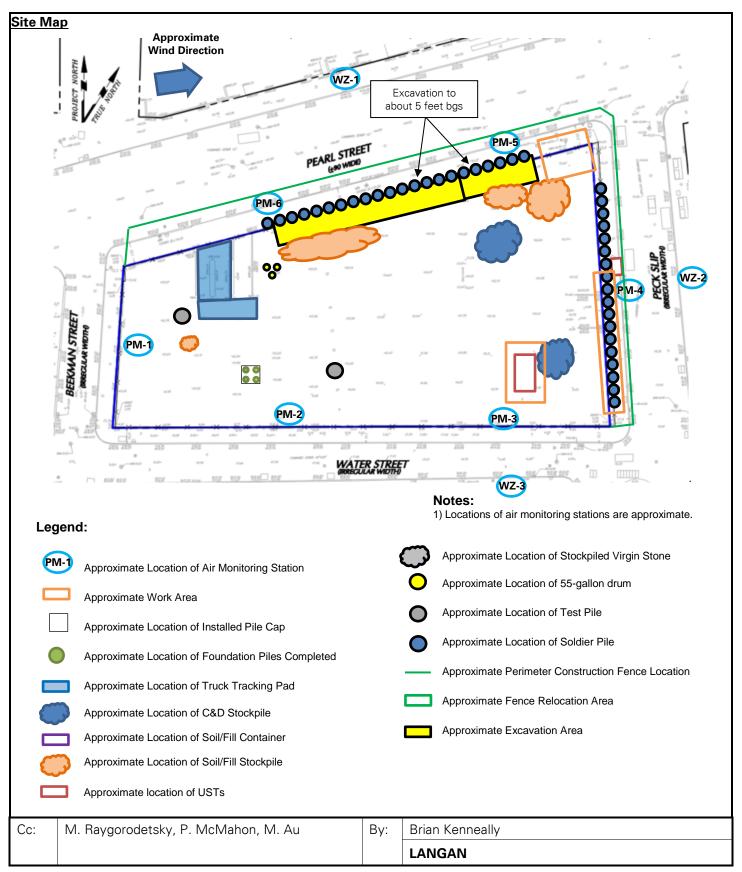
# **Anticipated Activities**

- UBS will begin relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the southern boundary of the site.
- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will excavate soil/fill in the mercury-impacted area for off-site disposal to the CENJ facility, located in Kearny, NJ.

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Page 7 of 9





Page 8 of 9

# SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** CCJV excavating soil/fill along the northern boundary of the site and actively applying Mercon-X® to the excavation area (facing southeast)



**Photo 2:** Timber lagging installation progress along the northern boundary of the site (facing north).

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Page 9 of 9



Photo 3: CCJV covering a tri-axle dump truck prior to exiting the site (facing northeast)

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## SITE OBSERVATION REPORT

CLIENT: **PROJECT No.:** 170381202 DATE: Tuesday, July 26, 2022 250 Seaport District, LLC

c/o The Howard Hughes

Corporation Sunny, 72.1 – 82.9 °F **WEATHER:** PROJECT: 250 Water Street Wind: NNE @ 0.5 - 7.4 mph

LOCATION: New York, NY TIME: 6:00 AM - 5:30 PM

**BCP SITE ID:** C231127 MONITOR: Brian Kenneally, Maitland Robinson

PRESENT AT SITE: **EQUIPMENT:** Day 49 MiniRAE 3000 PID Langan (Environmental/Geotechnical) - Brian Kenneally, Maitland Robinson, DustTrak II Kevin Leong, Eddie Cai Jerome J405® **LendLease** (Construction Manager) – Marty Cohen Jerome J505® Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) - Jack Dettra, George Hand tools Washburn **CAT 374F** New York State Department of Environmental Conservation (NYSDEC) -

Komatsu 969 Marnie Chancy

Komatsu 228 Excel Environmental Resources, Inc – Abby Lodge Takeuchi TB290 AKRF Inc. (AKRF) (Archaeologist) - Elizabeth Meade

# **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

- CCJV began installation of support-of-excavation (SOE) soldier piles SP23 through SP27 along the northern boundary of the site and SOE soldier piles SP29 through SP31 along the eastern boundary of the site.
- CCJV temporarily backfilled an about 20-foot-long by 10-foot-wide area in the northeastern part of the site using previously excavated soil/fill originating from the same location.
- CCJV installed T-brackets along the edges of soldier piles SP16 through SP21 to accommodate timber lagging installation.
- CCJV installed timber lagging between soldier piles SP16 through SP21 to a depth of about 5 feet bgs for SOE system installation along the northern site boundary.
- CCJV continued excavating an about 85-foot-long by 20-foot-wide area to a maximum depth of about 10 feet bgs for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cells WC04 and WC05). Excavated soil/fill was either live-loaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.
  - o Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. A maximum instantaneous mercury vapor concentration of 1.07 µg/m<sup>3</sup> was recorded during screening of excavated soil/fill.
  - Instantaneous mercury vapor concentrations ranging from 1.12 µg/m³ to 2.51 µg/m³ were recorded during screening of ambient air in the work zone. Work was periodically halted and Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was applied to the excavation area until mercury vapor

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Page 2 of 9

## SITE OBSERVATION REPORT

concentrations returned to background conditions. There were no 15-minute time-weighted average (TWA) concentrations for mercury vapor exceeding the action level established in the community air monitoring plan (CAMP) at any perimeter or work zone CAMP station.

- o Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- o After excavation was complete, Mercon-X® and Atmos® AC-645 dust/vapor suppressing foam was applied to exposed soil/fill and stockpiles were covered with polyethylene sheeting.
- CCJV installed timber lagging between soldier piles SP05 through SP11 to a depth of about 10 feet bgs for SOE system installation along the northern site boundary.
- CCJV continued installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the northern sidewalk of Water Street.
- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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Page 3 of 9

## SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- CCJV exported the four underground storage tank (UST) carcasses for off-site disposal as scrap metal at Sal's Metal Corp, located in the Bronx, NY.
- CCJV exported 20 truckloads (about 400 cubic yards [CY]) of non-hazardous, mercury-impacted soil/fill from waste characterization cells WC04 and WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- CCJV exported 4 truckloads (about 80 CY) of C&D debris, consisting of concrete and asphalt from the former site cover, for off-site disposal at the Impact Reuse & Recovery Center (IRCC) facility, located in Lyndhurst, NJ.

	Material Import Summary						
Facility Name Location Type of Material	Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone  No. of Approx. Volume Loads (Tons)  0 0		ocation Haledon, NJ Haledon, NJ		Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities			ties		No. of Loads	Approx. Volume (Tons)	
Today			0 0		0	0	
Total	7	161.51	0 0		2	41.23	
NYSDEC Approved:		1,000	CY			400 CY	

	Material Export Summary							
Facility Name Location Type of Material	Location Construction & Type of Material Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	4	80	0	0	20	400
Total	5	85	10	200	14	280	38	760

## **Sampling Activities**

• No samples were collected.

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Page 4 of 9

## SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at work zones at nine total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.00 µg/m³ and 5.0 ppm, respectively).

### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from at 0.00 to 0.03 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

## Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.014	0.0	0.01
PM-2	0.026	0.0	0.01
PM-3	0.028	0.2	0.00
PM-4	0.012	0.0	0.02
PM-5	0.028	0.2	0.02
PM-6	0.027	0.0	0.06
WZ-1	0.018	0.0	0.01
WZ-2	0.011	0.1	0.00
WZ-3	0.012	0.4	0.01

**Maximum 15-Minute-Average Concentrations** 

Station ID Particulate (mg/m³)		Organic Vapor (ppm)	Mercury Vapor (µg/m³)		
Action Level 0.100 mg/m <sup>3</sup>		5.0 ppm	1.00 μg/m³		
PM-1 0.034		0.0	0.05		
PM-2	0.055	0.0	0.04		
PM-3	**0.129 at 3:05pm	1.0	0.00		
PM-4	0.034	0.1	0.04		
PM-5	0.092	0.8	0.08		
PM-6	*0.195 a 8:43am	0.0	0.32		
WZ-1	0.027	0.0	0.02		
WZ-2	0.019	0.3	0.01		
WZ-3	0.018	1.0	0.22		

- $\bullet$ mg/m<sup>3</sup> = milligrams per cubic meter  $\bullet$ ppm = parts per million  $\bullet$ µg/m<sup>3</sup> = micrograms per cubic meter
- \* PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP (0.100 mg/m3) from 8:34am to 8:48am (15 minutes). The exceedance was caused by active spraying of Mercon-X® in proximity to perimeter CAMP station PM-6 and was not the result of ground-intrusive activities at the site. During this time, work was temporarily halted due to instantaneous mercury vapor concentrations above

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Page 5 of 9

## SITE OBSERVATION REPORT

background conditions recorded during screening of the ambient air in the north-central part of the site. Fugitive dust was not observed migrating from the site during this time.

\*\* PM10 concentrations at perimeter CAMP station PM-3 exceeded the action level established in the CAMP (0.100 mg/m³) from 3:02pm to 3:10pm (9 minutes). During this time, CCJV was loading C&D debris into a truck for off-site disposal. Dust suppression was implemented by spraying the C&D debris with water and concentrations of PM10 returned to background conditions. Fugitive dust was not observed migrating from the site during this time.

## Equipment Troubleshooting

• PM10 concentrations at perimeter CAMP station PM-6 were not recorded from 7:41am to 7:48am due to a malfunction with the remote telemetry system. During this time, the dedicated mobile monitor visually monitored the PM10 concentrations on the DustTrak unit while restarting the telemetry system, however, the data was not able to be recovered. PM10 concentrations did not approach or exceed the action level established in CAMP (0.100 mg/m³). Fugitive dust was not observed migrating from the site during this time and data logging resumed at 7:49am.

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.63 µg/m³, with the exception of ambient air screening in the north-central part of the site during excavation in the mercury-impacted area. During this time, the maximum instantaneous mercury vapor concentration was recorded at 2.51 µg/m³, however, there were no 15-minute TWA concentrations for mercury vapor exceeding the action level established in the CAMP at any perimeter or work zone CAMP station.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:07am to 5:21pm during excavation/backfilling activities and SOE soldier pile installation along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 7:07am to 5:21pm during installation of SOE soldier piles along the eastern boundary of the site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 7:07am to 5:21pm during installation of the perimeter construction fence along the southern boundary of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued at 5:21pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station were recorded at 0.03 µg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

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Page 6 of 9

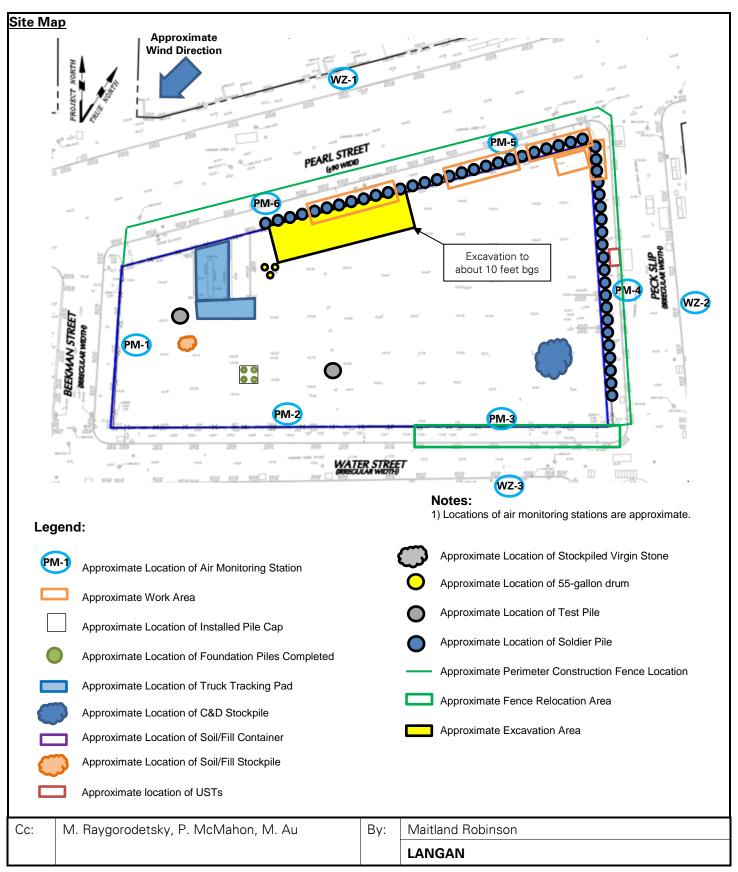
## SITE OBSERVATION REPORT

# Anticipated Activities • UBS will continue relocation of the perimeter construction fence along the northern sidewalk of Water Street. CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site. CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation. CCJV will continue installation of timber lagging between soldier piles. CCJV will continue excavation of soil/fill in the mercury-impacted area for off-site disposal to the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ. Cc: M. Raygorodetsky, P. McMahon, M. Au By: Maitland Robinson

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Page 7 of 9





Page 8 of 9

# SITE OBSERVATION REPORT

# Select Site Photographs:



Photo 1: SOE lagging installation progress along the northern boundary of the site (facing southeast)



Photo 2: CCJV excavating soil/fill in the north-central part of the site and actively applying Mercon-X® (facing northeast)

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Page 9 of 9



**Photo 3:** CCJV applying Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day (facing northeast)

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# SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Wednesday, July 27, 2022

PROJECT:

250 Water Street

New York, NY

C231127

250 Seaport District, LLC c/o The Howard Hughes

Corporation

Sunny, 75.2 – 78.0 °F **WEATHER:** Wind: N @ 0.5 – 4.0 mph

6:00 AM - 5:30 PM

TIME:

DATE:

**MONITOR:** Brian Kenneally, Elsah Boak

**BCP SITE ID: EQUIPMENT:** 

LOCATION:

PRESENT AT SITE:

Day 50

MiniRAE 3000 PID DustTrak II

Jerome J405®

Jerome J505® Hand tools

**CAT 374F** Komatsu 969

Komatsu 228 Takeuchi TB290 Langan (Environmental/Geotechnical) - Brian Kenneally, Elsah Boak, Kevin

Leong, Eddie Cai

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra New York State Department of Environmental Conservation (NYSDEC) -

Marnie Chancy

AKRF Inc. (AKRF) (Archaeologist) - Elizabeth Meade

Lakewood Environmental Services Corp (Lakewood) (Drilling Contractor) -

Tim Kelly

**UBS** (Fence Contractor)

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

- CCJV completed installation of support-of-excavation (SOE) soldier piles SP23 through SP28 along the northern boundary of the site and SOE soldier piles SP29 through 31 along the eastern boundary of the site.
- CCJV continued excavating an about 90-foot-long by 25-foot-wide area to a maximum depth of about 10 feet below grade surface (bgs) for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cells WC04 and WC05). Excavated soil/fill was either liveloaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.
  - o Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. A maximum instantaneous mercury vapor concentration of 0.89 µg/m³ was recorded during screening of excavated soil/fill.
  - o Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- CCJV excavated an about 30-foot-long by 15-foot-wide area to a maximum depth of about 10 feet bgs for removal and off-site disposal of non-hazardous soil/fill in the northeastern part of the site (waste characterization cell WC07). Excavated soil/fill was either live-loaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Middlesex County Landfill in East Brunswick NJ.

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Page 2 of 9

- Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome<sup>®</sup> J505) of contamination was recorded.
- o CCJV removed construction and demolition (C&D) debris, consisting of concrete and brick, from the excavation area and stockpiled it on polyethylene sheeting in the east-central part of the site in preparation for off-site disposal.
- CCJV excavated two about 4-foot-long by 3-foot-wide test pits to a maximum depth of about 4 feet bgs to locate potential subsurface utilities and/or obstructions prior to installation of SOE soldier piles along the southern boundary of the site.
  - Excavated soil/fill was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the excavation area and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or Jerome<sup>®</sup> J505) of contamination was recorded.
  - A subsurface electrical line was identified during excavation activities. Con Edison is scheduled to investigate the electrical line on July 28, 2022.
- CCJV installed timber lagging between soldier piles SP11 through SP16 to a depth of about 10 feet bgs for SOE system installation along the northern site boundary.
- CCJV installed T-brackets along the edges of soldier piles SP21 through SP27 to accommodate timber lagging installation.
- CCJV placed concrete in previously installed SOE soldier piles along the northern boundary of the site.
- UBS continued installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the northern sidewalk of Water Street.
- Lakewood used a Geoprobe® direct-push drill rig with a 4-foot-long Macro-Core® samplers to advance 8 soil borings to determine the extents of previously identified hazardous lead-impacted soil/fill in the south-central part of the site. Langan observed and documented the work, screened the soil samples for environmental impacts, and collected soil samples:
  - Soil borings SB28\_N3, SB28\_NW3, SB28\_NE3, SB28\_NE3a, SB28\_NE3b, SB28\_NE3c, SB28\_NE4a, and SB28\_NE5a were advanced to depths ranging between 10 and 12 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. No odors, staining, or instrumental evidence of contamination was recorded.
  - o Soil borings were backfilled with non-impacted drilling cuttings and/or clean sand and patched with cold patch asphalt after sampling was completed.
- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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			LANGAN



Page 3 of 9

# SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- CCJV exported 18 truckloads (about 360 cubic yards [CY]) of non-hazardous, mercury-impacted soil/fill from waste characterization cells WC04 and WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- CCJV exported 20 truckloads (about 400 CY) of non-hazardous soil/fill from waste characterization cell WC07 for off-site disposal at the Middlesex County Landfill located in East Brunswick, NJ.

Material Import Summary							
Facility Name Location Type of Material	Location Haledon, NJ		Ha	Industries, Inc. aledon, NJ ch Virgin Stone	Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities	No. of Approx. Volume (Tons)		No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	0	0	
Total	7	161.51	0	0	2	41.23	
NYSDEC Approved:		1,000	CY			400 CY	

	Material Export Summary									
Facility Name Location Type of Material  Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead- Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill		Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill		
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No, of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0	18	360	20	400
Total	5	85	10	200	14	280	56	1,120	20	400

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Brian Kenneally
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Page 4 of 9

## SITE OBSERVATION REPORT

## **Sampling Activities**

- Langan collected two soil samples for laboratory analysis of total and toxicity characteristic leaching procedure (TCLP) lead.
  - o An additional 18 soil samples were collected and placed on hold with the laboratory for potential analysis of total and TCLP lead pending receipt of the initial laboratory report.
- Langan collected one composite soil sample for laboratory analysis of NYSDEC Part 375/target compound list (TCL) semivolatile organic compounds (SVOCs), pesticides, herbicides, polychlorinated biphenyls (PCBs), Part 375/target analyte list (TAL) metals (including hexavalent/trivalent chromium and total cyanide), TCLP metals, Resource Conservation and Recovery Act (RCRA) characteristics, paint filter, and full TCLP (minus TCLP volatile organic compounds [VOCs]).
- Samples were relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

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Page 5 of 9

## SITE OBSERVATION REPORT

# **CAMP** Activities

Langan performed air monitoring at the perimeter of the site and at work zones at nine total locations for mercury vapor, VOCs, and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP ( $1.00 \, \mu g/m^3$  and  $5.0 \, ppm$ , respectively).

### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome<sup>®</sup> J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from at 0.00 to 0.03 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

## Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (μg/m³)
PM-1	0.011	0.0	0.01
PM-2	0.034	0.0	0.01
PM-3	0.031	0.1	0.00
PM-4	0.017	0.1	0.01
PM-5	0.038	0.1	0.02
PM-6	0.024	0.0	0.01
WZ-1	0.026	0.0	0.01
WZ-2	0.009	0.4	0.02
WZ-3	0.019	0.4	0.01

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
Action Level	0.100 mg/m <sup>3</sup>	5.0 ppm	1.00 μg/m³
PM-1	0.025	0.0	0.02
PM-2	0.073	0.2	0.02
PM-3	0.056	0.3	0.01
PM-4	0.047	0.4	0.03
PM-5	0.080	0.6	0.07
PM-6	*0.102 a 9:30am	0.1	0.05
WZ-1	0.097	0.0	0.03
WZ-2	0.019	0.6	0.08
WZ-3	0.042	1.6	0.03

\* PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP (0.100 mg/m3) from 9:29am to 9:34am (6 minutes). The exceedance was caused by exhaust from a truck

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Page 6 of 9

## SITE OBSERVATION REPORT

exiting the site following delivery of tie-backs for the SOE system. Fugitive dust was not observed migrating from the site during this time.

## Equipment Troubleshooting

• PM10 concentrations at off-site CAMP station WZ-2 (located along the Peck Slip sidewalk) were not recorded from 11:19am to 11:52am due to a depleted battery. Upon notification that off-site CAMP station WZ-2 was not transmitting data, the dedicated CAMP monitor investigated the station and observed that the telemetry case and Jerome® J505 unit was stolen. A Jerome® J405 unit was stationed with off-site CAMP station WZ-2 prior to the start of work and a spare Jerome® J505 was placed atop the station for the remainder of the day. The Daily Air Monitoring Report reflects mercury vapor data using the Jerome® J405 from 6:51am to 12:06pm and the Jerome® J505 from 12:06pm to 5:31pm. Following coordination with the New York City Police Department, the depleted battery at off-site CAMP station WZ-2 was replaced and data logging for PM10 resumed at 11:53am. Perimeter CAMP station PM-4 was located between the work area and off-site CAMP station WZ-2 during this time and PM10 concentrations were not recorded above background conditions.

## Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.85 µg/m³ (mercury vapor concentrations above background conditions are associated with ambient air screening during excavation activities in the mercury-impacted area). There were no 15-minute time-weighted average (TWA) concentrations for mercury vapor that exceeded the action level established in the CAMP at any perimeter or work zone CAMP station.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:58am to 5:31pm during excavation activities and SOE soldier pile installation along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 6:58am to 5:31pm during installation of SOE soldier piles along the eastern boundary of the site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 7:00am to 5:31pm during test pit excavation and installation of the perimeter construction fence along the southern boundary of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 5:17pm and 5:31pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station were recorded at 0.02 μg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Brian Kenneally



Page 7 of 9

## SITE OBSERVATION REPORT

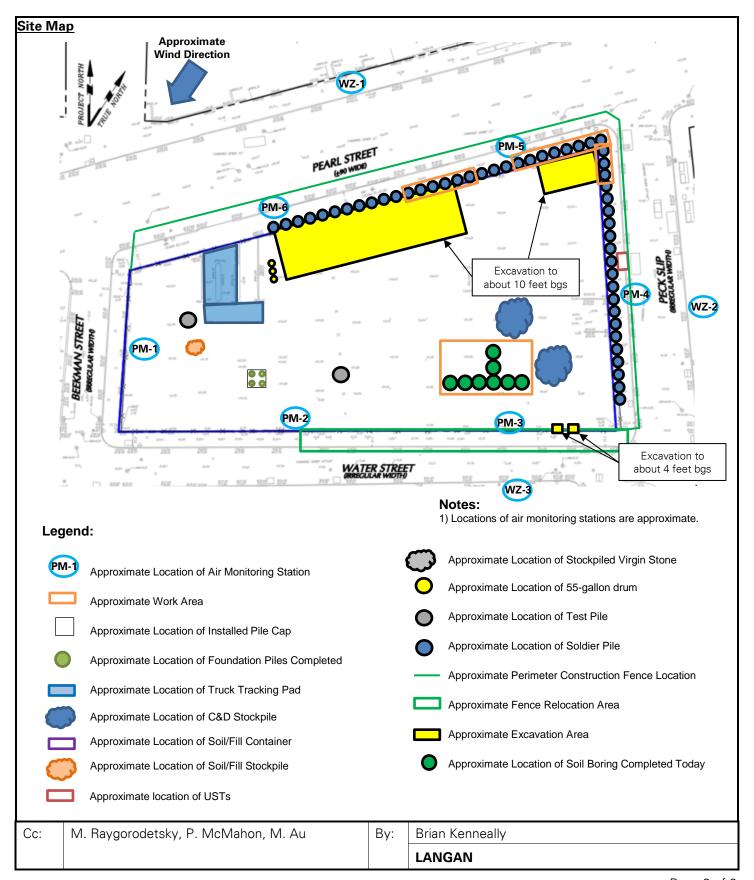
# **Anticipated Activities**

- UBS will continue relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue excavation of test pits along the southern boundaries of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will continue excavation and off-site disposal of soil/fill in the northeastern part of the site.

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Page 8 of 9

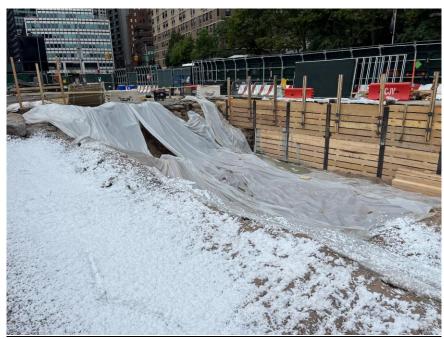




Page 9 of 9

# SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** Atmos® AC-645 dust/vapor suppressing foam and/or polyethylene sheeting applied to exposed soil/fill in the north-central part of the site (facing northwest)

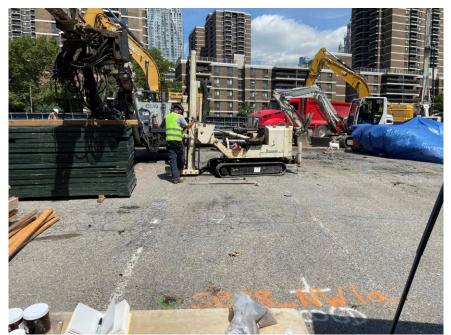


Photo 2: Lakewood advancing a soil boring in the south-central part of the site (facing north)

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## SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE:

Thursday, July 28, 2022

PROJECT:

250 Water Street

HFR: Sunny, 82.7 – 88.1 °F

WEATHER: Sun

Wind: N @ 0.1 mph

**LOCATION:** New York, NY

TIME:

6:00 AM - 5:30 PM

BCP SITE ID: C231127

MONITOR: Maitland Robinson, Elsah Boak

**EQUIPMENT**:

PRESENT AT SITE:

250 Seaport District, LLC c/o The Howard Hughes

**Day 51** 

MiniRAE 3000 PID DustTrak II Jerome J405® **Langan** (Environmental/Geotechnical) – Maitland Robinson, Elsah Boak, Kevin Leong, Ava Sann, Lisa Cristiano

Leong, Ava Sann, Lisa Cristiano

Jerome J505® Hand tools CAT 374F **LendLease** (Construction Manager) – Marty Cohen **Civetta Cousins JV, LLC (CCJV)** (Foundation Contractor) – Jack Dettra

New York State Department of Environmental Conservation (NYSDEC) -

Marnie Chancy

Komatsu 969

AKRF Inc. (AKRF) (Archaeologist) - Elizabeth Meade

**UBS** (Fence Contractor)

Komatsu 228 Takeuchi TB290

## **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

## **Site Activities**

- CCJV excavated an about 56-foot-long by 20-foot-wide area to a maximum depth of about 10 feet below grade surface (bgs) for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cell WC05). Excavated soil/fill was either live-loaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Clean Earth of North Jersey (CENJ) facility located in Kearny, NJ.
  - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome<sup>®</sup> J505) of contamination was recorded.
  - o Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- CCJV excavated an about 54-foot-long by 20-foot-wide area to a maximum depth of about 10 feet bgs for removal and off-site disposal of non-hazardous soil/fill in the northeastern part of the site (waste characterization cell WC07). Excavated soil/fill was either live-loaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Middlesex County Landfill in East Brunswick NJ.
  - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome<sup>®</sup> J505) of contamination was recorded.

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Page 2 of 8

- o CCJV removed construction and demolition (C&D) debris, consisting of concrete and brick, from the excavation area and stockpiled it on polyethylene sheeting in the east-central part of the site in preparation for off-site disposal.
- CCJV placed concrete in previously installed support-of-excavation (SOE) soldier piles along the northern boundary of the site.
- CCJV installed timber lagging between soldier piles SP21 through SP32 to a depth of about 5 feet bgs for SOE system installation along the northern and eastern site boundaries.
- CCJV installed timber lagging between soldier piles SP17 through SP26 to a depth of about 10 feet bgs for SOE system installation along the northern site boundary.
- CCJV demolished previously stockpiled concrete in the east-central part of the site using an excavator with a hydraulic hammer attachment in preparation for off-site disposal.
- UBS completed installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the northern sidewalk of Water Street.
- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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Page 3 of 8

# SITE OBSERVATION REPORT

# **Material Tracking**

- No material was imported to the site.
- CCJV exported 21 truckloads (about 420 CY) of non-hazardous, mercury-impacted soil/fill from waste characterization cell WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- CCJV exported 20 truckloads (about 400 CY) of non-hazardous soil/fill from waste characterization cell WC07 for off-site disposal at the Middlesex County Landfill located in East Brunswick, NJ.

Material Import Summary						
Facility Name Location Type of Material	n Haledon, NJ Haledon, NJ			Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)
Today	0 0		0	0	0	0
Total	7 161.51		0 0		2	41.23
NYSDEC Approved:		1,000	CY			400 CY

	Material Export Summary									
Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead- Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill		Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No, of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0	21	420	20	400
Total	5	85	10	200	14	280	77	1,540	40	800

## **Sampling Activities**

• No samples were collected from the site.

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Page 4 of 8

## SITE OBSERVATION REPORT

# **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at work zones at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.00 µg/m³ and 5.0 ppm, respectively).

## **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.08 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

## Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Bully Attorage Concentrations								
Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)					
PM-1	0.055	0.1	0.03					
PM-2	0.039	0.0	0.01					
PM-3	0.045	0.2	0.00					
PM-4	0.040	0.1	0.02					
PM-5	0.042	0.1	0.01					
PM-6	0.037	0.0	0.01					
WZ-1	0.008	0.0	0.01					
WZ-2	NA	NA	NA					
WZ-3	0.035	0.5	0.01					

**Maximum 15-Minute-Average Concentrations** 

······································								
Station ID	Station ID Particulate (mg/m³)		Mercury Vapor (µg/m³)					
Action Level	0.100 mg/m <sup>3</sup>	5.0 ppm	1.00 μg/m³					
PM-1	*0.309 at 8:48am	1.4	0.13					
PM-2	0.064	0.1	0.03					
PM-3	0.085	0.4	0.00					
PM-4	0.071	0.4	0.03					
PM-5	0.066	0.4	0.03					
PM-6	0.054	0.0	0.02					
WZ-1	0.021	0.0	0.03					
WZ-2	NA	NA	NA					
WZ-3	0.050	2.4	0.02					

- $\bullet$ mg/m³ = milligrams per cubic meter  $\bullet$ ppm = parts per million  $\bullet$ µg/m³ = micrograms per cubic meter
- \* PM10 concentrations at perimeter CAMP station PM-1 exceeded the action level established in the CAMP (0.100 mg/m³) from 8:26am to 9:01am (36 minutes) and from 9:18am to 9:35am (18 minutes). The exceedances were caused by saw-cutting of the Beekman Street sidewalk, immediately west of the site, by

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Page 5 of 8

## SITE OBSERVATION REPORT

an independent contractor. The off-site work was not related to 250 Water Street construction or remediation activities within the site and fugitive dust was not observed migrating from the site during these times.

# Equipment Troubleshooting

- PM10 concentrations at the following perimeter CAMP stations were not recorded during replacement of the external batteries:
  - o PM-5 from 8:03am to 8:14am (11 minutes)
  - o PM-4 from 1:43pm to 2:07pm (24 minutes)
  - o PM-6 from 3:10pm to 3:27pm (17 minutes)
  - o PM-2 from 3:39pm to 3:57pm (18 minutes)
- In each instance, work was halted upon notification via the remote telemetry system that the DustTrak units were not sending data or there were no ongoing ground-intrusive activities on site. Fugitive dust was not observed migrating from the site during each of these times. Additionally, off-site CAMP stations WZ-1 and WZ-3 (located across the Pearl Street and Peck Slip sidewalks, respectively) did not record concentrations of PM10 above background conditions.

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.12 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:56am to 5:17pm during excavation activities along the northern boundary of the site.
- CAMP station WZ-3 was relocated to the eastern sidewalk of Peck Slip from 6:48am to 5:09pm during excavation activities in the northeastern part of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 5:09pm and 5:24pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 μg/m³ to 0.06 μg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

## **Anticipated Activities**

- UBS will continue relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue excavation of test pits along the southern boundary of the site.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson, Elsah Boak
			LANGAN



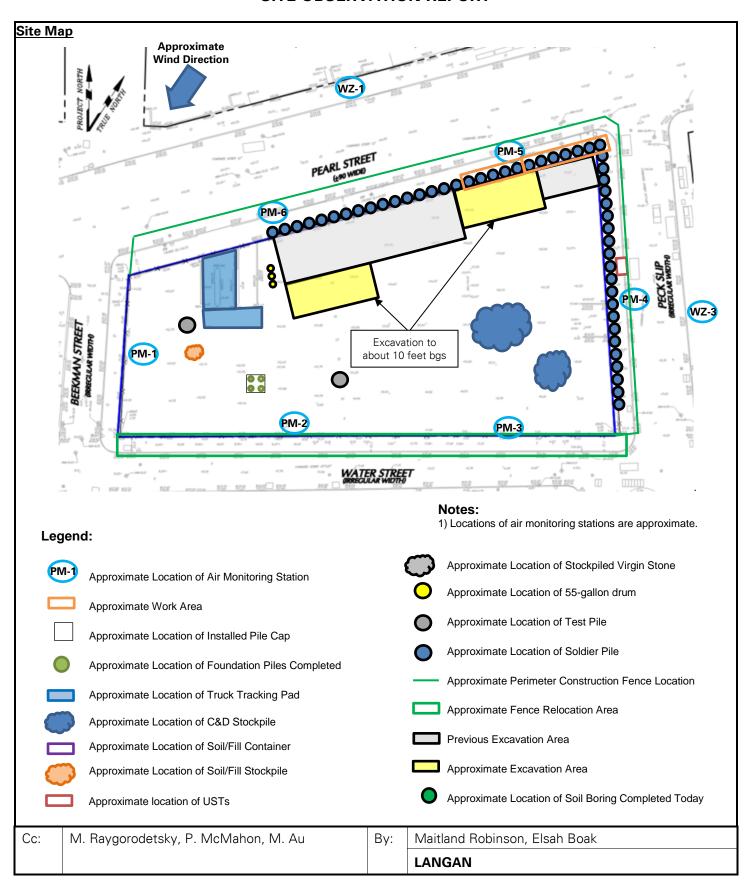
Page 6 of 8

			LANGAN
Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson, Elsah Boak
•	CCJV will continue excavation and off-site dispos	al of so	il/fill in the northeastern part of the site.
•	CCJV will continue installation of timber lagging b		
	installation.		
•		g the e	dges of soldier piles to accommodate timber lagging



Langan PN: 170381202 Thursday, July 28, 2022

Page 7 of 8





Langan PN: 170381202 Thursday, July 28, 2022

Page 8 of 8

## SITE OBSERVATION REPORT

## Select Site Photographs:



**Photo 1:** CCJV actively applying Mercon-X® and Atmos® AC-645 dust/vapor suppressing foam to exposed soil/fill during excavation in the north-central part of the site (facing northwest)



Photo 2: CCJV loading a dump truck with excavated non-hazardous soil/fill for off-site disposal (facing northeast)

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### SITE OBSERVATION REPORT

**PROJECT No.**: 170381202

CLIENT:

Corporation

250 Seaport District, LLC

**DATE:** Friday, July 29, 2022

PROJECT:

250 Water Street

**WEATHER:** Overcast, 75.0 – 87.0 °F

. Wind: WNW @ 0.0 – 13.0 mph

**LOCATION**: New York, NY

**TIME:** 6:00 AM – 5:30 PM

BCP SITE ID: C231127

MONITOR: Maitland Robinson, Elsah Boak

**EQUIPMENT:** 

PRESENT AT SITE:

c/o The Howard Hughes

**Day 52** 

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505®

Hand tools

**CAT 374F** 

Komatsu 969

Langan (Environmental/Geotechnical) – Maitland Robinson, Elsah Boak, Lauren

Roper, Kevin Leong, Lisa Cristiano

LendLease (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra New York State Department of Environmental Conservation (NYSDEC) –

Marnie Chancy

AKRF Inc. (AKRF) (Archaeologist) – Elizabeth Meade

**UBS** (Fence Contractor)

Komatsu 228 Takeuchi TB290

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

### **Site Activities**

- CCJV excavated an about 50-foot-long by 20-foot-wide area to a maximum depth of about 10 feet below grade surface (bgs) for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cell WC05). Excavated soil/fill was live-loaded into tri-axle dump trucks for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.
  - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome<sup>®</sup> J505) of contamination was recorded.
  - o Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- CCJV excavated an about 90-foot-long by 40-foot-wide area to a maximum depth of about 10 feet bgs for removal and off-site disposal of non-hazardous soil/fill in the northeastern part of site (waste characterization cell WC07). Excavated soil/fill was live-loaded into tri-axle dump trucks for off-site disposal at the Middlesex County Landfill in East Brunswick, NJ.
  - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome<sup>®</sup> J505) of contamination was recorded.
- CCJV installed timber lagging between support-of-excavation (SOE) soldier piles SP32 through SP36 to a depth of about 5 feet bgs for SOE system installation along the eastern site boundary.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Maitland Robinson, Elsah Boak
			LANGAN



Page 2 of 7

M. Raygorodetsky, P. McMahon, M. Au	By:	Maitland Robinson, Elsah Boak
work day.	odin to	create a temporary overnight cover at the end of the
		demolition (C&D) debris with polyethylene sheeting create a temporary overnight cover at the end of the
		g, consisting of concrete jersey barriers and plywood
·	_	
		s SP26 through SP34 to a depth of about 10 feet bgs ern site boundaries.
f C S U	for SOE system installation along the northern are CCJV used imported general fill to backfill the space of the street sidewalk between SOE soldier piles SP01 UBS began installation of perimeter construction banels, along the eastern sidewalk of Beekman S	for SOE system installation along the northern and easted CCJV used imported general fill to backfill the space between soldier piles SP01 through JBS began installation of perimeter construction fencing panels, along the eastern sidewalk of Beekman Street.



Page 3 of 7

### SITE OBSERVATION REPORT

### **Material Tracking**

- CCJV imported six truckloads (approximately 150.01 tons) of general fill from the Impact Reuse and Recovery Center (IRRC) facility, located in Lyndhurst, NJ. The imported fill was temporarily placed on polyethylene sheeting prior to being used for backfill behind the previously installed SOE lagging along the northern boundary of the site.
- CCJV exported six truckloads (about 120 cubic yards [CY]) of C&D, consisting of demolished concrete, for off-site disposal at the IRRC facility, located in Lyndhurst, NJ.
- CCJV exported 20 truckloads (about 400 CY) of non-hazardous, mercury-impacted soil/fill from waste characterization cell WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- CCJV exported 23 truckloads (about 460 CY) of non-hazardous soil/fill from waste characterization cell WC07 for off-site disposal at the Middlesex County Landfill located in East Brunswick, NJ.

	Material Import Summary								
Facility Name Location Type of Material	Hal 1.5/2.!	Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone Stone Stone Stone		Haledon, NJ 0.75-inch Virgin		Impact Reuse & Recovery Center or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		Impact Reuse & Recovery Center, Lyndhurst, NJ General Fill	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	
Today	0	0	0	0	0	0	6	150.01	
Total	7	161.51	0	0	2	41.23	6	150.01	
NYSDEC Approved:	1,000 CY			4	100 CY	5,000	CY		

	Material Export Summary									
Facility Name Location Type of Material	Construction & Con Demolition (C&D)		Lyndhu Constru Demo	RC Irst, NJ Iction & Dittion Debris	Clean Earth of North Jersey Kearny, NJ Hazardous Lead- Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill		Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No, of Loads	Approx. Volume (CY)
Today	0	0	6	120	0	0	20	400	23	460
Total	5	85	16	320	14	280	97	1,940	63	1,260

#### Sampling Activities

No samples were collected from the site.

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Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson, Elsah Boak



Page 4 of 7

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at work zones at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.00  $\mu$ g/m³ and 5.0 ppm, respectively).

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.04 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (μg/m³)
PM-1	0.035	0.0	0.02
PM-2	0.049	0.0	0.00
PM-3	0.050	0.2	0.00
PM-4	0.034	0.5	0.01
PM-5	0.037	0.0	0.01
PM-6	0.026	0.0	0.01
WZ-1	0.046	0.0	0.01
WZ-2	NA	NA	NA
WZ-3	0.034	0.2	0.01

### **Maximum 15-Minute-Average Concentrations**

Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
0.100 mg/m <sup>3</sup>	5.0 ppm	1.00 μg/m³
0.082	0.0	0.05
* 0.103 @ 11:40am	0.0	0.02
0.072	0.3	0.00
0.051	1.2	0.04
0.068	0.1	0.02
0.073	0.1	0.03
0.076	0.0	0.22
NA	NA	NA
0.049	0.6	0.02
	0.100 mg/m³ 0.082 * 0.103 @ 11:40am 0.072 0.051 0.068 0.073 0.076 NA	0.100 mg/m³         5.0 ppm           0.082         0.0           * 0.103 @ 11:40am         0.0           0.072         0.3           0.051         1.2           0.068         0.1           0.073         0.1           0.076         0.0           NA         NA

- ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter
- \* PM10 concentrations at perimeter CAMP station PM-2 exceeded the action level established in the CAMP (0.100 mg/m3) from 11:39am to 11:41am (3 minutes). The exceedance was caused by saw-cutting of the Beekman Street sidewalk, immediately west of the site, by an independent contractor. The off-site work was

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson, Elsah Boak
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Page 5 of 7

### SITE OBSERVATION REPORT

not related to 250 Water Street construction or remediation activities within the site and fugitive dust was not observed migrating from the site during this time.

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.09 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:51am to 5:29pm during excavation activities in the north-central part of the site.
- CAMP station WZ-3 was relocated to the eastern sidewalk of Peck Slip from 7:07am to 5:20pm during excavation activities in the northeastern part of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 5:20pm and 5:40pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 μg/m³ to 0.01 μg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

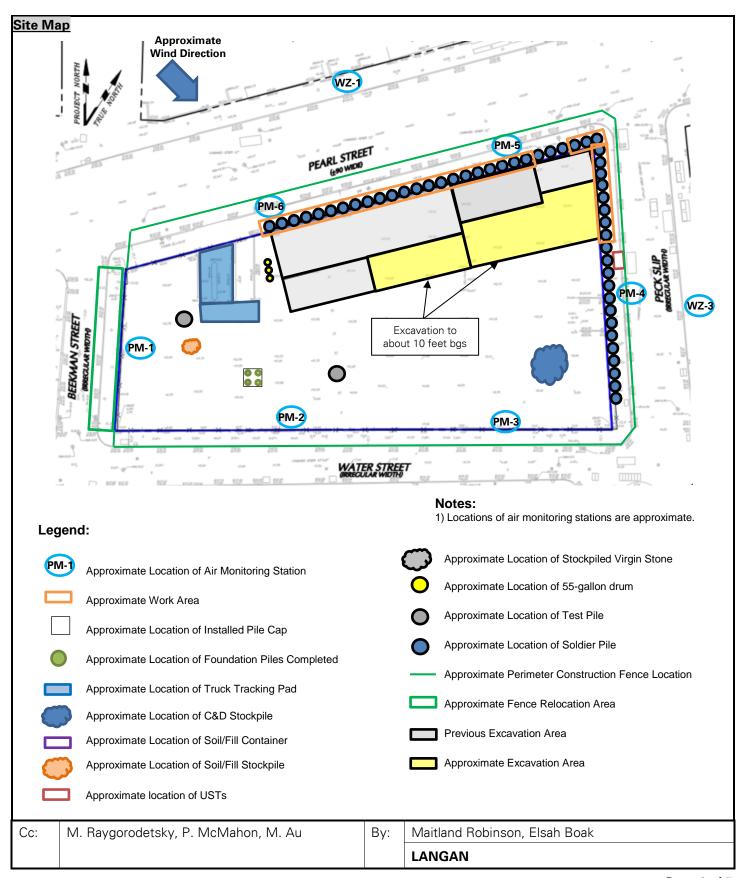
#### Anticipated Activities

- UBS will continue relocation of the perimeter construction fence along the eastern sidewalk of Beekman Street.
- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue excavation of test pits along the southern boundary of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will continue excavation and off-site disposal of soil/fill in the central and eastern parts of the site.

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Page 6 of 7





Page 7 of 7

## SITE OBSERVATION REPORT

## Select Site Photographs:



**Photo 1:** SOE lagging installation progress and Atmos® AC-645 dust/vapor suppressing foam applied to exposed soil/fill in the north-central and northeastern parts of the site (facing northeast)



**Photo 2:** Backfilled general fill behind previously installed timber lagging along the northern site boundary (facing southeast)

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### SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE: Sat

Saturday, July 30, 2022

PROJECT:

250 Water Street

250 Seaport District, LLC c/o The Howard Hughes

**WEATHER:** 

Sunny, 84.0 – 88.0 °F Wind: WNW @ 3.5 – 11.5 mph

**LOCATION:** New York, NY

TIME:

BCP SITE ID: C231127

MONITOR: Maitland Robinson, Maye Yassin

8:00 AM - 5:30 PM

**EQUIPMENT:** 

PRESENT AT SITE:

Day 53

MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® Hand tools

Maedeh Tavaloki

**LendLease** (Construction Manager) – Marty Cohen

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra
New York State Department of Environmental Conservation (NYSDEC) –

Langan (Environmental/Geotechnical) - Maitland Robinson, Maye Yassin,

Marnie Chancy

CAT 374F Komatsu 969 Komatsu 228

Takeuchi TB290

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

### **Site Activities**

- CCJV excavated three test pits along the southern boundary of the site (waste characterization cell WC09) to
  identify potential subsurface utilities and/or obstructions prior to support-of-excavation (SOE) soldier pile
  installation. Each test pit consisted of an about 6-foot-long by 6-foot-wide area and was excavated to a
  maximum depth of about 6 feet below grade surface (bgs).
  - Excavated soil/fill was temporarily stockpiled on polyethylene sheeting adjacent to each respective test pit and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome® J505) of contamination was recorded.
  - Subsurface utilities or obstructions were not identified. The excavated soil/fill was covered with polyethylene sheeting and will be temporarily backfilled into each respective test pit of origin following installation of SOE soldier piles.
- CCJV excavated three test pits along the southern boundary of the site (waste characterization cell WC06) to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation. Each test pit consisted of an about 3-foot-long by 3-foot-wide area and was excavated to a maximum depth of about 3 feet bgs.
  - Excavated soil/fill was temporarily stockpiled on polyethylene sheeting adjacent to each respective test pit and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome<sup>®</sup> J505) of contamination was recorded.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson, Elsah Boak
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Page 2 of 7

- Subsurface utilities or obstructions were not identified. The excavated soil/fill was temporarily backfilled into each respective test pit of origin and will be excavated for off-site disposal at a later date.
- CCJV excavated an about 8-foot-long by 4-foot-wide area and an about 10-foot-long by 4-foot-wide area to a maximum depth of about 5 feet bgs to facilitate installation of timber lagging along the eastern boundary of the site. Excavated soil/fill was temporarily stockpiled on polyethylene sheeting adjacent to each respective work area in preparation for off-site disposal at a later date.
  - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome<sup>®</sup> J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome<sup>®</sup> J505) of contamination was recorded.
- CCJV welded T-brackets to the edges of previously installed soldier piles along the eastern boundary of the site.
- CCJV installed timber lagging between SOE soldier piles SP36 through SP42 to a depth of about 5 feet bgs for SOE system installation along the eastern boundary of the site.
- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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Page 3 of 7

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

	Material Import Summary											
Facility Name Location Type of Material	Location 1 5/2 5-inch Virgin		Haled 0.75-ind	Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		Impact Reuse & Recovery Center or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		Impact Reuse & Recovery Center, Lyndhurst, NJ General Fill				
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)				
Today	0	0	0	0	0	0	0	0				
Total	7	161.51	0	0	2	41.23	6	150.01				
NYSDEC Approved:	1,000 CY			4	100 CY	5,000	CY					

	Material Export Summary											
Facility Name Location Type of Material  Brookly Construct Demolitio Deb		Recycling dyn, NY ruction & tion (C&D) ebris	IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead- Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill		Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill			
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No, of Loads	Approx. Volume (CY)		
Today	0	0	0	0	0	0	0	0	0	0		
Total	5	85	16	320	14	280	97	1,940	63	1,260		

## **Sampling Activities**

• No samples were collected from the site.

				LANGAN
(	Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson



Page 4 of 7

### SITE OBSERVATION REPORT

#### **CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at work zones at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.00  $\mu$ g/m³ and 5.0 ppm, respectively).

#### **Background Concentrations**

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 μg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

### Perimeter and Work Zone Concentrations

**Daily Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
PM-1	0.012	0.0	0.02
PM-2	0.016	0.0	0.00
PM-3	0.033	0.0	0.00
PM-4	0.046	0.1	0.01
PM-5	0.032	0.1	0.01
PM-6	0.015	0.0	0.01
WZ-1	N/A	N/A	N/A
WZ-2	0.009	0.2	0.01
WZ-3	0.008	0.3	0.01

**Maximum 15-Minute-Average Concentrations** 

Station ID	Particulate (mg/m³)	Organic Vapor (ppm)	Mercury Vapor (µg/m³)
Action Level	0.100 mg/m³	5.0 ppm	1.00 μg/m³
PM-1	0.018	0.0	0.06
PM-2	0.022	0.0	0.01
PM-3	0.086	0.2	0.00
PM-4	** 0.184 @ 4:37pm	0.3	0.02
PM-5	0.046	0.2	0.02
PM-6	* 0.113 @ 11:11am	0.1	0.03
WZ-1	N/A	N/A	N/A
WZ-2	0.016	0.5	0.02
WZ-3	0.015	1.3	0.02

- ullet mg/m³ = milligrams per cubic meter ullet ppm = parts per million ullet  $\mu$ g/m³ = micrograms per cubic meter
- \* PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP (0.100 mg/m3) from 11:11am to 11:24am (14 minutes). During this time, CCJV was excavating test pits along the southern site boundary, which was downwind of perimeter CAMP station PM-6. The exceedance was not

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
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Page 5 of 7

### SITE OBSERVATION REPORT

the result of ground-intrusive activities and fugitive dust was not observed migrating from the site. The DustTrak unit within perimeter CAMP station PM-6 was recalibrated and concentrations of PM10 returned to background conditions.

\*\* PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP (0.100 mg/m3) from 1:26pm to 1:45pm (20 minutes), 3:41pm to 3:44pm (4 minutes), 4:00pm to 4:14pm (15 minutes), and 4:31pm to 4:45pm (15 minutes). The exceedances were caused by welding activities adjacent to perimeter CAMP station PM-4 along the eastern boundary of the site and were not the result of ground-intrusive activities at the site. Fugitive dust was not observed migrating from the site during each of these times.

### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.07 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

#### Off-Site CAMP Station Relocation

- CAMP station WZ-2 was relocated to the southern sidewalk of Water Street from 9:11am to 4:51pm during excavation of test pits along the southern boundary of the site.
- CAMP station WZ-3 was relocated to the eastern sidewalk of Peck Slip from 9:07am to 4:57pm during excavation activities in the eastern part of the site.

#### Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 4:51pm and 5:39pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 μg/m³ to 0.02 μg/m³.
- VOC concentrations at each CAMP station ranged from at 0.0 ppm to 0.4 ppm.

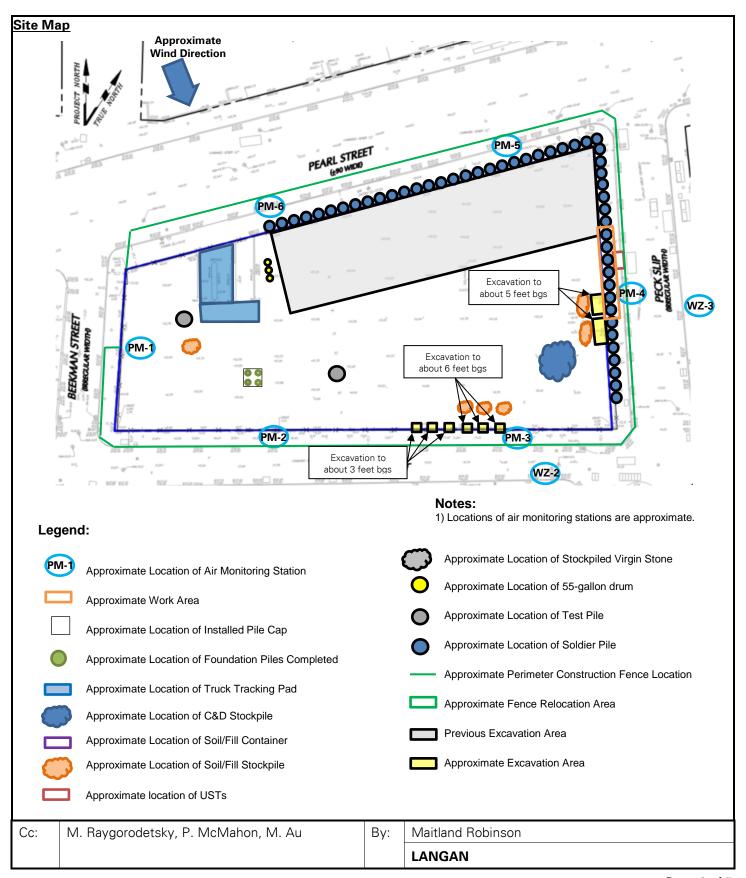
#### Anticipated Activities

- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue excavation of test pits along the southern boundary of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will continue excavation and off-site disposal of soil/fill in the central and eastern parts of the site.

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Page 6 of 7

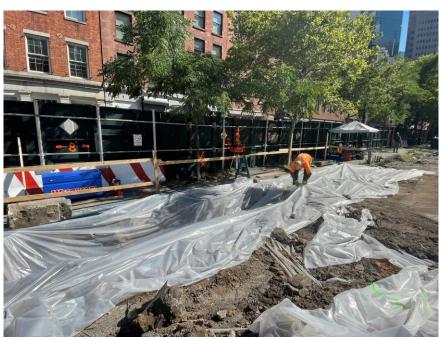




Page 7 of 7

## SITE OBSERVATION REPORT

## Select Site Photographs:



**Photo 1:** CCJV covering exposed soil/fill with polyethylene sheeting along the southern boundary of the site (facing southwest)



**Photo 2:** CCJV applying Atmos® AC-645 dust/vapor suppressing foam to exposed soil/fill and stockpiles in the southeastern part of the site (facing southeast)

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Maitland Robinson
			LANGAN



### SITE OBSERVATION REPORT

**PROJECT No.:** 170381202

CLIENT:

Corporation

DATE:

Sunday, July 31, 2022

PROJECT:

250 Water Street

c/o The Howard Hughes

Sunny, 70.0 – 80.0 °F

**WEATHER:** 

Wind: NW @ 0.0 - 2.0 mph

New York, NY

TIME:

8:30 AM - 11:00 AM

**BCP SITE ID:** C231127

**MONITOR:** Andrew Ashley

**EQUIPMENT:** 

LOCATION:

PRESENT AT SITE:

250 Seaport District, LLC

Day 54

MiniRAE 3000 PID Jerome J505®

**Langan** (Environmental) – Andrew Ashley

Civetta Cousins JV, LLC (CCJV) (Foundation Contractor)

### **OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

### Site Activities

CCJV covered exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover prior to resuming work on Monday, August 1, 2022.

Cc: M. Raygorodetsky, P. McMahon, M. Au Andrew Ashley By: **LANGAN** 



Page 2 of 5

## SITE OBSERVATION REPORT

## **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.

	Material Import Summary											
Facility Name Location Type of Material	Haledon, NJ H		Location Location 1.5/2.5-inch Virgin Type of Material  Haledon, NJ 1.5/2.5-inch Virgin 0.75-inch Virgin		Impact Reuse & Recovery Center or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		Impact Reuse & Recovery Center, Lyndhurst, NJ General Fill					
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)				
Today	0	0	0	0	0	0	0	0				
Total	7	161.51	0	0	2	41.23	6	150.01				
NYSDEC Approved:	1,000 CY				2	100 CY	5,000	CY				

	Material Export Summary											
Facility Name Location Type of Material	Location Type of  Demolition (C&D)		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead- Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill		Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill			
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No, of Loads	Approx. Volume (CY)		
Today	0	0	0	0	0	0	0	0	0	0		
Total	5	85	16	320	14	280	97	1,940	63	1,260		

## **Sampling Activities**

• No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	Ву:	Andrew Ashley
			LANGAN



Page 3 of 5

### SITE OBSERVATION REPORT

## **CAMP Activities**

The community air monitoring plan (CAMP) was not implemented, as there were no ground-intrusive activities ongoing at the site. Langan performed ambient air monitoring across the site using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer during reinstallation of the temporary overnight cover.

#### Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ to 0.37 µg/m³.
  - o Following the recorded detection above background, CCJV applied Mercon-X® to the exposed soil/fill in the north-central part of the site prior to application of Atmos® AC-645 dust/vapor suppressing foam. Ambient air was monitored for an additional 30 minutes using the handheld Jerome® J505 mercury vapor analyzer and concentrations returned to background conditions following application of the Mercon-X® and the temporary overnight cover.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor volatile organic compound (VOC) concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

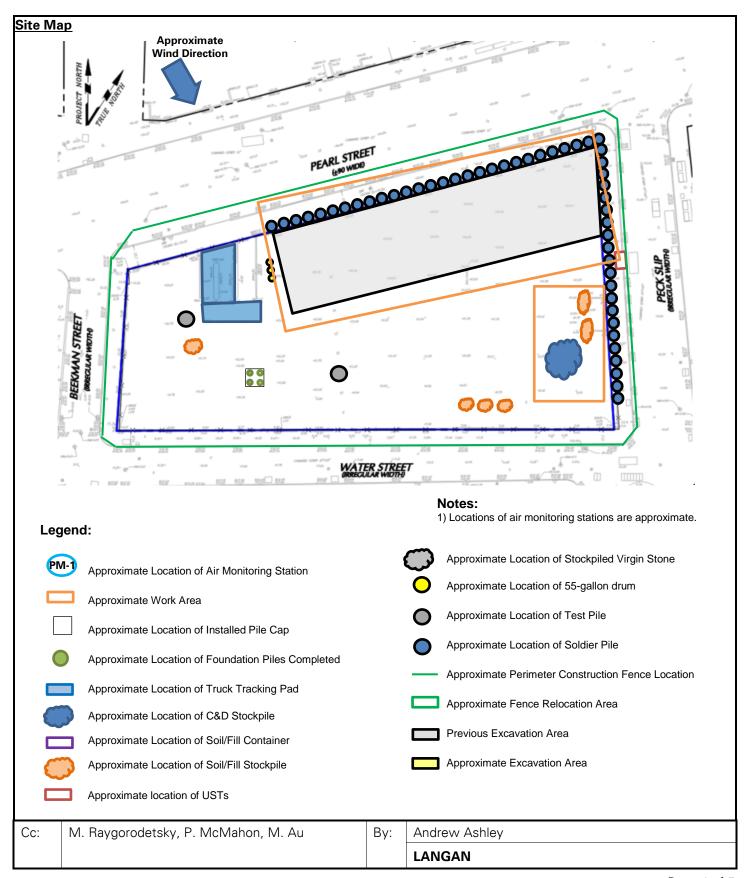
## **Anticipated Activities**

- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue excavation of test pits along the southern boundary of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will continue excavation and off-site disposal of soil/fill in the central and eastern parts of the site.

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			LANGAN



Page 4 of 5





Page 5 of 5

## SITE OBSERVATION REPORT

# Select Site Photographs:



**Photo 1:** Atmos® AC-645 dust/vapor suppressing foam re-applied to exposed soil/fill in the eastern part of the site (facing east)

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