SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Saturday, July 16, 2022
PROJECT: 250 Water Street		**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:
MiniRAE 3000 PID
DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
Komatsu 969
Komatsu 228
Takeuchi TB290

PRESENT AT SITE: **Day 40**
Langan (Environmental) – Maitland Robinson, Eirene Pavlakis
LendLease (Construction Manager)
Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra, George Washburn
Brookside Environmental, Inc. (Brookside) (UST Cleaning/Removal Contractor) – Oscar Pendao
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

- 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.
    - 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^3 and 2.74 µg/m^3 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/m^3 was recorded upon screening of the excavated soil/fill from test pit TP08. Mercury vapor concentrations

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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/m^3 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/m^3 and 0.29 µg/m^3 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.

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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	**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 Import 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	0	0	0	0
Total	1	25	1	20	14	280

Sampling Activities

- No samples were collected.

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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 ug/L, 5.0 ppm, and 0.1 mg/m^3, 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^3.
- 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/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
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

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
CAMP Action Level	**0.100 mg/m^3**	**5.0 ppm**	**1.0 µg/m^3**
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/m^3 = milligrams per cubic meter ●ppm = parts per million ●µg/m^3 = micrograms per cubic meter

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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/m^3 to 0.15 µg/m^3.
- 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/m^3.
- 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.

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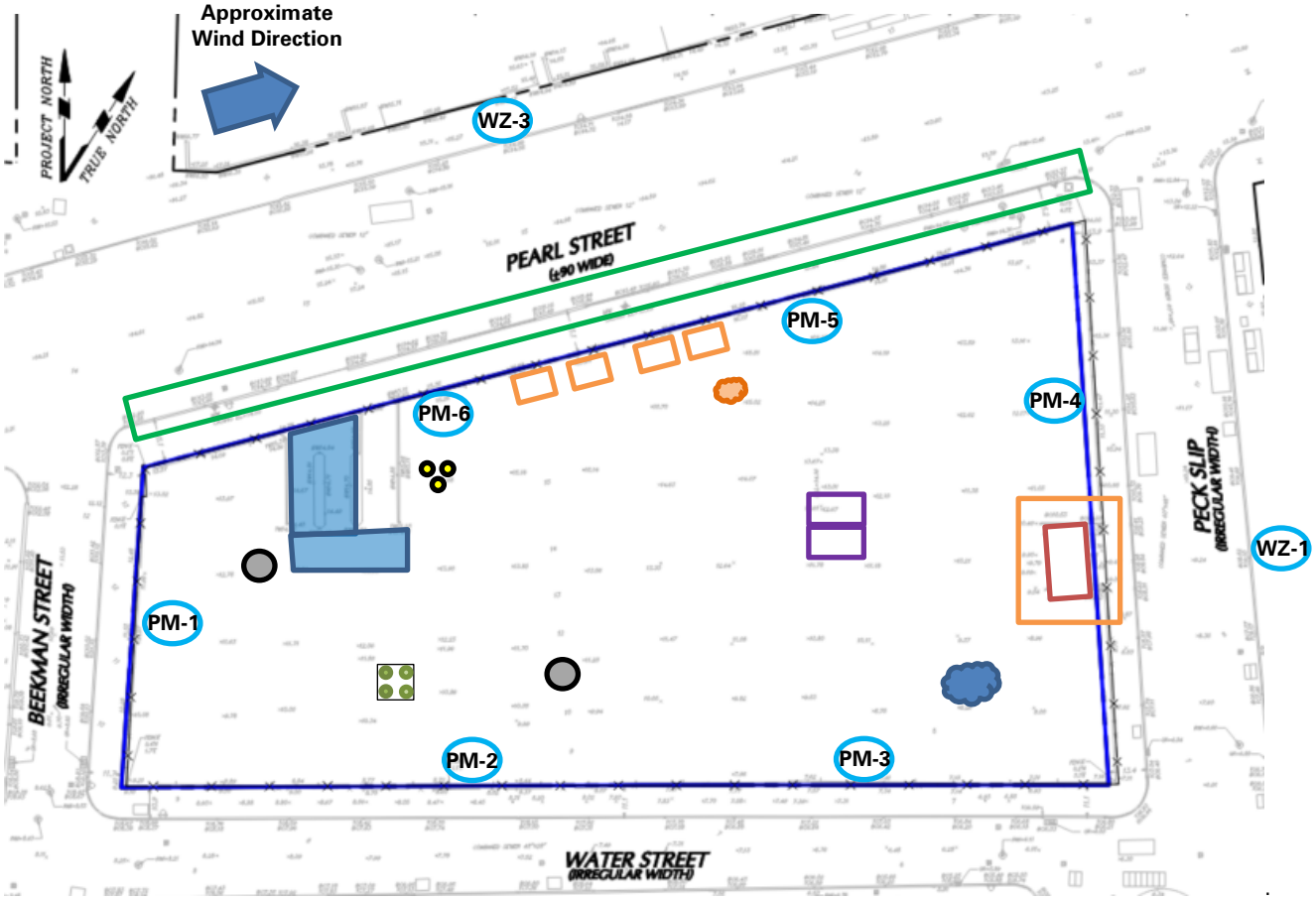
Site Map



Notes:
1) Locations of air monitoring stations are approximate.

Legend:

- PM-1 — Approximate Location of Air Monitoring Station
- Approximate Work Area
- Approximate Location of Installed Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Truck Tracking Pad
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Container
- Approximate Location of Soil/Fill Stockpile
- Approximate location of USTs
- Approximate Location of Stockpiled Virgin Stone
- Approximate Location of 55-gallon drum
- Approximate Location of Test Pile
- Approximate Fence Relocation Area

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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)

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