SITE OBSERVATION REPORT

PROJECT No.:	170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Monday, September 18, 2023
PROJECT:	250 Water Street		**WEATHER:**	Rain, 65 – 68° F Wind: N @ 0.1 – 1.6 mph
LOCATION:	New York, NY		**TIME:**	5:45am – 5:30pm
BCP SITE ID:	C231127		**MONITOR**	Jack Millman

EQUIPMENT:
CAT 335 Excavator
CAT 328 Excavator
Komatsu PC138 Excavator
Delmag Drill Rig
Bauer RTG RG 27S
Bauer BG45 Drill Rig
Jerome J505 Mercury Vapor Analyzer
RKI GX-6000 Photoionization Detector (PID)
Aeroqual ASQ1 Air Monitoring Station

PRESENT AT SITE: **Day 205**
Langan (Environmental/Geotechnical) Jack Millman, Michael Cole, Pradeep Pandey
Suffolk Construction (Suffolk) (General Contractor) Anthony Galu, Wyatt Favia
East Coast Drilling, Inc. (ECD) (Foundation Contractor) Danny Rodgers
New York State Department of Environmental Conservation (NYSDEC) Marnie Chancey, Sydney Sobol
AKRF, Inc. (Archaeologist) Theresa Imbriolo
Innovative Recycling Technologies, Inc. (UST Cleaning/Removal Contractor 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

- ECD used a Bauer RTG RG 27S drill rig to install five soldier piles to a depth of about 35 feet below grade surface (bgs) for support-of-excavation (SOE) installation in the northern part of the site (Pearl Street). ECD's drill rig advanced a steel rod with a soil mixing paddle at the bottom of the rod, while concurrently injecting grout through the top of the paddle and spinning and advancing the paddle downward.
    - No drilling spoils were generated during installation of the soldier piles.
    - Excess grout was contained within a temporary trench adjacent to the drilling area and will be managed as C&D debris at a later date.
- ECD demolished existing asphalt and concrete in the northern part of the site. The construction and demolition (C&D) debris was temporarily stockpiled and covered with polyethylene sheeting adjacent to the work area pending future off-site disposal.
- IRT decommissioned the empty 550-gallon underground storage tank (UST) staged in the southern part of the site. Decommissioning activities included cutting a hole in the UST to render it unusable and cleaning the interior of the tank using absorbent pads. The absorbent pads were containerized in a United Nations /Department of Transportation (UN/DOT)-approved 55-gallon steel drum for off-site disposal. No odors or PID readings were observed during decommissioning of the UST.

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SITE OBSERVATION REPORT

Material Tracking

- IRT exported the about 550-gallon UST carcass for off-site disposal as scrap metal at the Gershow Recycling facility, located in Brooklyn, New York.
- IRT exported one UN/DOT-approved 55-gallon drum containing spent absorbent pads for off-site disposal at the Republic Environmental Systems facility, located in Hatfield, Pennsylvania.
- No material was imported to 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 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
Project Total	12	283.91	0	0	15	339.65	374	9,157.85
NYSDEC Approved:	1,800 tons*				720 tons*		19,500 tons*	

*0.75-inch, 1.5-inch, and 2.5-inch virgin stone from the Stone Industries, Inc. facility and 1.5-inch clean bluestone from the Impact Reuse & Recovery Center (IRRC) facility were approved for import of 1,000 cubic yards (CY) and 400 CY, respectively. Assuming a conversion factor of 1.8, each quantity was converted to tons in order to accurately compare with import weight tickets. General fill from the IRRC facility was approved for import of 13,000 CY and a conversion factor of 1.5 is applied.

Material Export Summary (1 of 3)

Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ C&D Debris		Earth Efficient MSM East Stroudsburg, PA 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)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0	0	0
Project Total	5	85	42	840	47	940	95	1,900

Material Export Summary (2 of 3)

Facility Name Location Type of Material	Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill		Bayshore Soil Management Keasbey, NJ Petroleum-Impacted Soil/Fill		Clean Earth of Carteret, NJ Carteret, NJ Non-hazardous 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
Project Total	280	5,600	267	5,340	66	1,320

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Material Export Summary (3 of 3)				
Facility Name Location Type of Material	**Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill**		**Cycle Chem, Inc. Elizabeth, NJ Hazardous Lead - Impacted Soil/Fill**	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0
Project Total	201	4,020	10	200

Sampling

- No samples were collected.

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SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring at the perimeter of the site, at the northern sidewalk of Pearl Street, at the western sidewalk of Beekman Street, at the eastern sidewalk of Peck Slip, and at the southern sidewalk of Water Street at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10) from about 7:00am to 4:29pm. There were no fifteen-minute average concentrations for mercury vapor, VOCs or PM10 that approached or exceeded the action levels established by the CAMP (1.00 µg/m^3, 5.0 ppm, or 0.100 mg/m^3, respectively).

Background Concentrations

Prior to implementation of CAMP, 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/m^3.
- 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/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.005	0.00	0.01
PM-2	0.005	0.00	0.01
PM-3	0.006	0.00	0.00
PM-4	0.005	0.00	0.01
WZ-1	0.005	0.00	0.00
WZ-2	0.005	0.00	0.00
WZ-3	0.005	0.00	0.01
WZ-4	0.006	0.00	0.01

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.020	0.00	0.04
PM-2	0.016	0.01	0.07
PM-3	0.017	0.04	0.03
PM-4	0.014	0.06	0.03
WZ-1	0.012	0.00	0.01
WZ-2	0.013	0.01	0.01
WZ-3	0.016	0.02	0.02
WZ-4	0.018	0.01	0.04

●mg/m^3 = milligrams per cubic meter ●ppm = parts per million ●µg/m^3 = micrograms per cubic meter

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Equipment Troubleshooting

- VOC and PM10 data were not recorded until 8:33am at perimeter CAMP station PM-4 due to a connection issue between the battery and the CAMP station. VOC and PM10 data were not recorded at concentrations above background conditions at off-site CAMP station WZ-4 during this time and fugitive dust or odors were not observed migrating off-site during CAMP station troubleshooting. The connection was secured using a spare battery and datalogging at perimeter CAMP station PM-4 resumed at 8:34am. Mercury vapor data was manually downloaded from the Jerome® J505 unit at PM-4, and mercury vapor concentrations ranged from 0.00 µg/m^3 to 0.19 µg/m^3 from 7:00am to 8:33am.

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/m^3 to 0.08 µg/m^3.
- 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 workday.

Off-site CAMP Stations

- CAMP station WZ-1 was placed on the western sidewalk of Beekman Street from about 6:23am to 4:42pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 6:24am to 4:46pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 6:27am to 4:53pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 6:30am to 5:02pm.

Prior to CAMP Shutdown

Prior to discontinuing CAMP, mercury vapor and VOC concentrations were confirmed to return to background conditions at each perimeter station using the handheld Jerome® J505 mercury vapor analyzer and handheld PID, respectively. Perimeter CAMP stations were discontinued sequentially between 4:29pm and 4:35pm.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 µg/m^3.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- ECD will continue exporting C&D and soil/fill from the western part of the site for off-site disposal.
- ECD will continue installing soil mix columns and/or soldier piles for SOE installation along Pearl Street, Water Street, and Peck Slip.

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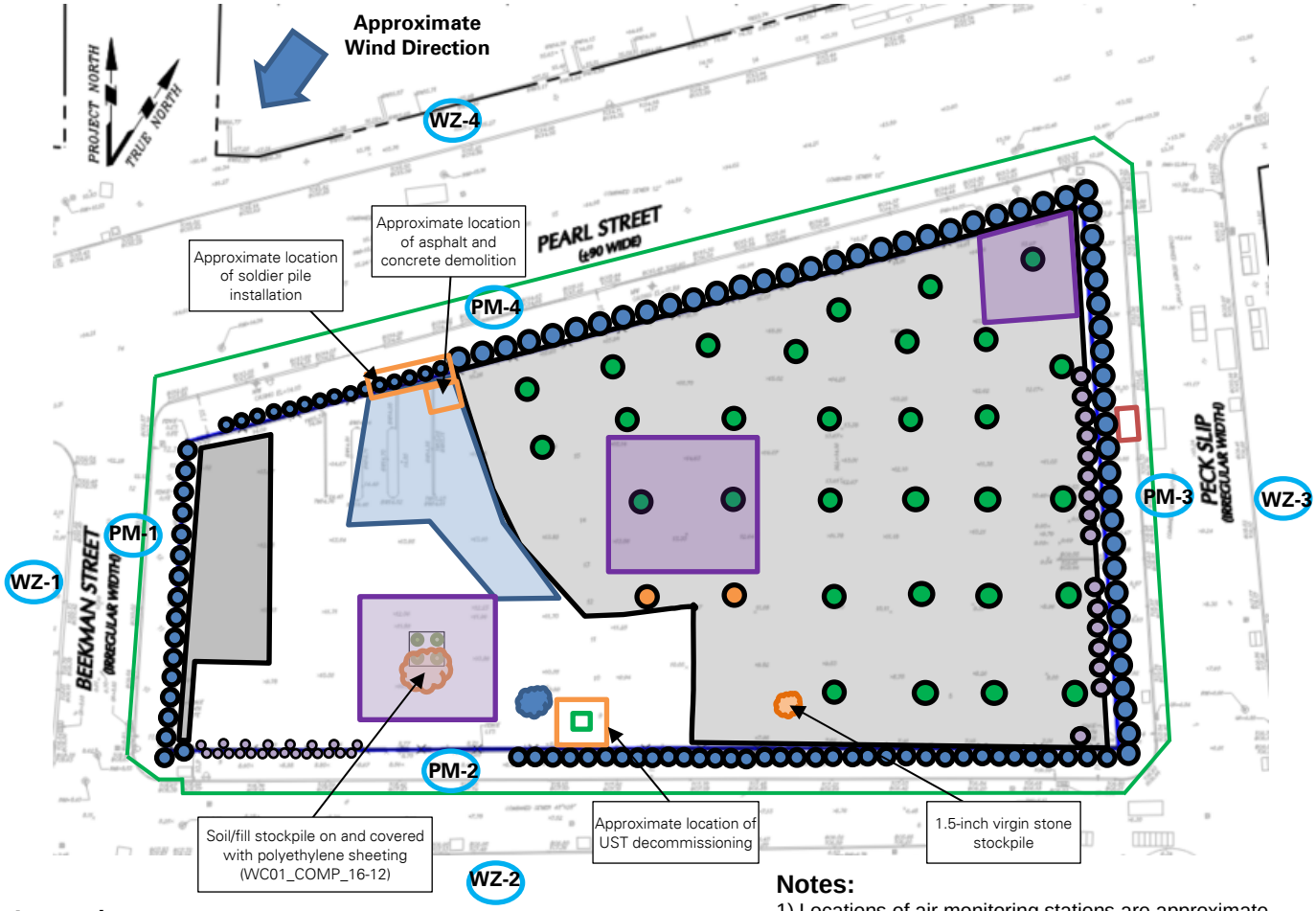
Site Map



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 Underground Storage Tank
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Stockpile
- Approximate Location of Staged UST
- Approximate Location of Soldier Pile
- Approximate Location of Soil Mix Column Installed Today
- Approximate Location of Soil Mix Column Installed Previously
- Approximate Perimeter Construction Fence Location
- Previous Excavation Area
- Approximate Excavation Area
- Approximate Location of Documentation Sample
- Approximate Location of Previously Collected Endpoint Sample
- Approximate Location of Imported Fill/Stone

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

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Select Site Photographs:

Photo 1: ECD demolishing existing asphalt and concrete in the northern part of the site (facing northwest)

Photo 2: Decommissioned UST in the southern part of the site prior to off-site disposal (facing southeast)

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