

SITE OBSERVATION REPORT

<p>PROJECT No.: 170381202</p> <p>PROJECT: 250 Water Street</p> <p>LOCATION: New York, NY</p> <p>BCP SITE ID: C231127</p>	<p>CLIENT: 250 Seaport District, LLC c/o The Howard Hughes Corporation</p>	<p>DATE: Tuesday, August 22, 2023</p> <p>WEATHER: Sunny, 68 – 76° F Wind: NW @ 0.3 – 2.5 mph</p> <p>TIME: 5:45am – 4:45pm</p> <p>MONITOR Jack Millman</p>
<p>EQUIPMENT: CAT 335 Excavator CAT 328 Excavator Komatsu PC138 Excavator ABI Mobilram Drill Rig Delmag Drill Rig Bauer BG45 Drill Rig Jerome J505 Mercury Vapor Analyzer RKI GX-6000 Photoionization Detector (PID) Aeroqual ASQ1 Air Monitoring Station</p>	<p>PRESENT AT SITE: Day 187 Langan (Environmental/Geotechnical) Jack Millman, Michael Cole, Pepper Greenley, Anastassios Balaouras 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) Rafi Alam</p>	
<p>OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:</p>		
<p>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).</p>		
<p>Site Activities</p>		
<ul style="list-style-type: none"> • ECD excavated an about 25-foot-long by 20-foot-wide area to a maximum depth of about 5 feet below grade surface (bgs) and an about 50-foot-long by 5-foot-wide area to a maximum depth of about 3 feet bgs in the western part of the site (waste characterization cells WC01, WC02, and WC03) for removal and future off-site disposal of non-hazardous soil/fill. <ul style="list-style-type: none"> ○ 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. No evidence of impacts was observed and the excavated soil/fill was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the work area for future off-site disposal. • ECD used a Bauer BG45 drill rig to install a deep soil mix column for support-of-excavation (SOE) installation in the eastern part of the site (along Peck Slip). ECD’s drill rig advanced a steel rod with two cutter blades at the bottom of the rod, while concurrently injecting grout through the cutting head and spinning and advancing the blades downward to about 94 feet bgs. <ul style="list-style-type: none"> ○ No drilling spoils were generated during installation of the soil mix column. ○ Excess grout was contained within a temporary containment area in the eastern part of the site and will be managed as construction and demolition (C&D) debris at a later date. • ECD used an ABI Mobilram drill rig to install one soldier pile to a depth of about 35 feet bgs for SOE installation in the northwest part of the site (along 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. 		
<p>Cc:</p>	<p>M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson</p>	<p>By: Jack Millman LANGAN</p>

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- No drilling spoils were generated during installation of the soldier pile.
- 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 relocated a section of the perimeter construction fencing along Water Street for equipment staging in the southern part of the site.
- ECD continued mobilizing and staging equipment for the site dewatering system in the southeast part of the site (along Water Street).

Material Tracking

- No material was exported from the site.
- 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	15	300	95	1,900

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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	263	5,260	267	5,340	66	1,320

Material Export Summary (3 of 3)

Facility Name Location Type of Material	Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)
Today	0	0
Project Total	216	4,320

Sampling

- No samples were collected.

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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 6:52am to 3:43pm. 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 $\mu\text{g}/\text{m}^3$, 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 $\mu\text{g}/\text{m}^3$.
- 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 ($\mu\text{g}/\text{m}^3$)
PM-1	0.009	0.00	0.01
PM-2	0.007	0.00	0.01
PM-3	0.007	0.00	0.00
PM-4	0.007	0.00	0.01
WZ-1	0.008	0.00	0.00
WZ-2	0.007	0.00	0.00
WZ-3	0.007	0.01	0.01
WZ-4	0.007	0.00	0.01

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor ($\mu\text{g}/\text{m}^3$)
PM-1	0.016	0.01	0.02
PM-2	0.009	0.02	0.02
PM-3	0.008	0.02	0.01
PM-4	0.009	0.02	0.03
WZ-1	0.011	0.00	0.01
WZ-2	0.009	0.02	0.00
WZ-3	0.009	0.09	0.03
WZ-4	0.009	0.00	0.02

• mg/m^3 = milligrams per cubic meter • ppm = parts per million • $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

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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 $\mu\text{g}/\text{m}^3$ to 0.17 $\mu\text{g}/\text{m}^3$.
- 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 6:25am to 3:56pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 6:28am to 4:02pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 6:34am to 4:11pm
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 6:37am to 4:20pm.

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 3:43pm and 3:51pm.

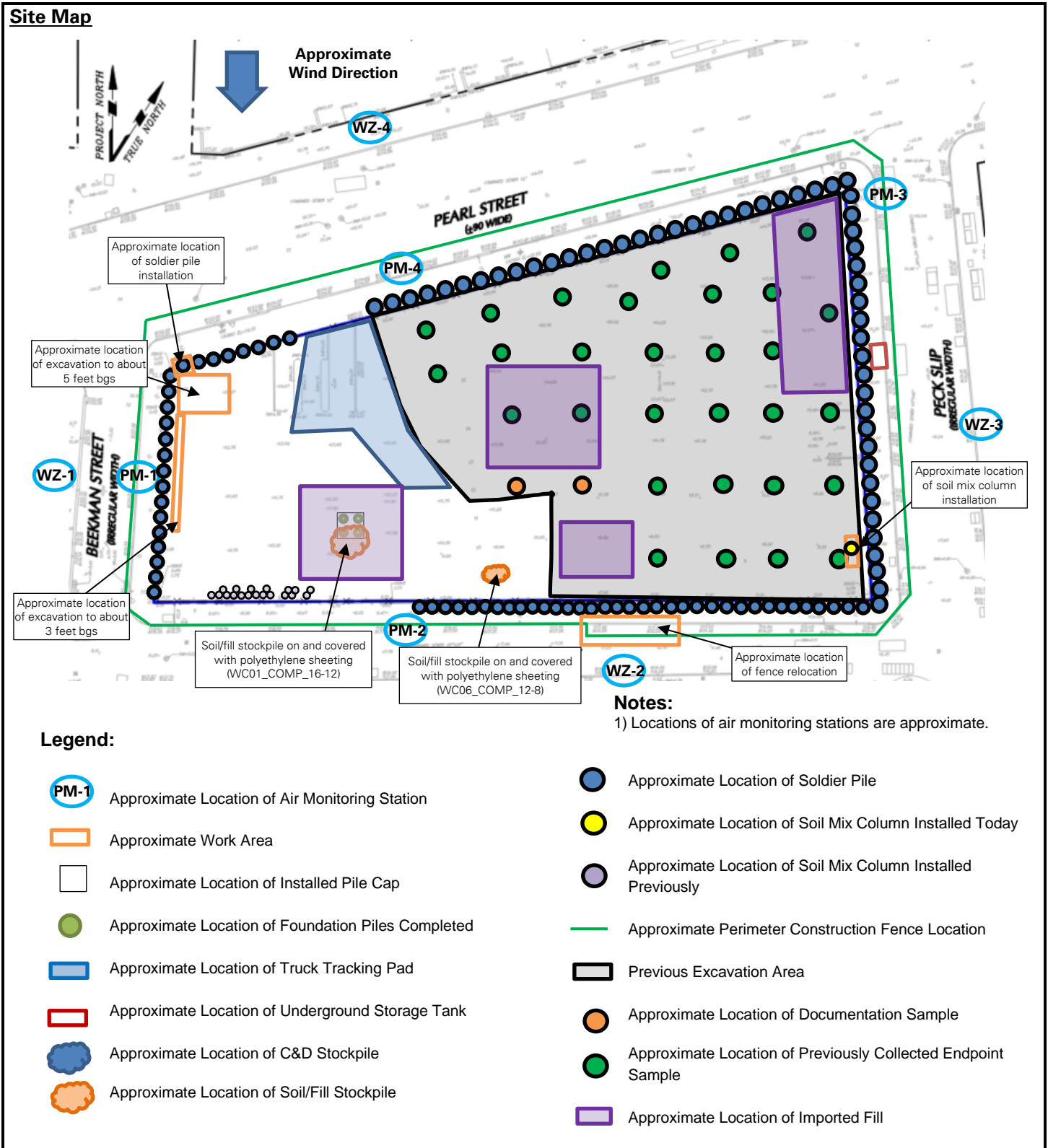
- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 $\mu\text{g}/\text{m}^3$.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

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 and Peck Slip.
- ECD will continue relocating the perimeter construction fencing along Water Street for equipment staging.
- ECD will continue mobilizing and staging equipment for the site dewatering system in the southeastern part of the site.

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Select Site Photographs:



Photo 1: ECD installing a soldier pile in the northwestern part of the site (facing west)



Photo 2: CAMP station WZ-3 on the eastern sidewalk of Peck Slip (facing northwest)

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