SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Wednesday, November 22, 2023
PROJECT: 250 Water Street		**WEATHER:**	Cloudy, 36 – 47 °F Wind: SE @ 0.1 – 1.8 mph
LOCATION: New York, NY		**TIME:**	5:45am – 4:15pm
BCP SITE ID: C231127		**MONITOR**	Gabriella DeGennaro

EQUIPMENT:
CAT 335 Excavator
CAT 328 Excavator
Komatsu PC210 Excavator
Delmag Drill Rig
Bauer RTG RG 27S
Bauer BG 36H Drill Rig
Bauer BG45 Drill Rig
Casagrande M6A-1 Tieback Drill Rig
Jerome J505 Mercury Vapor Analyzer
RKI GX-6000 Photoionization Detector (PID)
Aeroqual ASQ1 Air Monitoring Station

PRESENT AT SITE: **Day 256**
Langan (Environmental/Geotechnical) Gabriella DeGennaro, Michael Cole, Pradeep Pandey
Suffolk Construction (Suffolk) (General Contractor) Anthony Galu, Wyatt Favia
East Coast Drilling, Inc. (ECD) (Foundation Contractor) Mike Brosnan
New York State Department of Environmental Conservation (NYSDEC) Marnie DeLuke, Aaron Fischer

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 pre-drill two boreholes in the northern part of the site to loosen the underlying soil in preparation for soil mix column installation.
- ECD used a Bauer BG45 drill rig to install two deep soil mix columns in the northern part of the site (along Pearl Street) for the support-of-excavation (SOE) system. 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 a depth of about 120 feet bgs.
    - No drilling spoils were generated during installation of the soil mix columns.
    - Excess grout was contained within a temporary containment area in the southern part of the site and will be managed as construction and demolition (C&D) debris at a later date.
- ECD graded soil/fill in an about 30-foot-long by 20-foot-wide area in the northern part of the site to stabilize the surface for equipment access.
    - Graded soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. Evidence of impacts was not observed.

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SITE OBSERVATION REPORT

- ECD placed imported fill on polyethylene sheeting in the northeast part of the site for future backfilling of over-excavated areas.
- ECD continued installation of the concrete guide wall in the northern part of the site (along Pearl Street). The concrete guide wall will be used to facilitate installation of SOE along the perimeter of the site.

Material Tracking

- ECD exported two truckloads (about 40 cubic yards [CY]) of C&D debris for off-site disposal at the Earth Efficient MSM facility, located in East Stroudsburg, PA.
- ECD imported 22 truckloads (about 440 CY) of screened fill from the XRDS Recycling LLC facility, located in Wayne, NJ.

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		XRDS Recycling LLC Wayne, NJ Clean Screened 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)	No. of Loads	Approx Volume (CY)
Today	0	0	0	0	0	0	0	0	22	440
Project Total	16	382.13	0	0	15	339.65	374	9,157.85	22	440
NYSDEC Approved:	1,800 tons*				720 tons*		19,500 tons*		4,500 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 and XRDS facilities were approved for import of 13,000 CY and 3,000 CY, respectively, 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	2	40	0	0
Project Total	5	85	42	840	303	6,060	142	2,840

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SITE OBSERVATION REPORT

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	407	8,160	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**		**Cycle Chem, Inc. Elizabeth, NJ Hazardous Lead-Impacted Soil/Fill**		**Harmony Foul Rift (HFR) Belvidere, 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	201	4,020	17	340	135	2,700

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 7:04am to 3:20pm. 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	0.004	0.01	0.01
PM-2	0.002	0.00	0.02
PM-3	0.003	0.00	0.00
PM-4	0.003	0.00	0.03
WZ-1	0.003	0.00	* 0.01
WZ-2	0.002	0.00	0.00
WZ-3	0.002	0.00	0.00
WZ-4	0.002	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	0.008	0.08	0.05
PM-2	0.003	0.07	0.15
PM-3	0.005	0.01	0.02
PM-4	0.015	0.02	0.14
WZ-1	0.005	0.00	* 0.03
WZ-2	0.002	0.00	0.01
WZ-3	0.002	0.00	0.02
WZ-4	0.004	0.07	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

***** Mercury vapor data from off-site CAMP station WZ-1 was manually downloaded from the Jerome® J505 unit due to a datalogging issue which resulted in mercury vapor data not being transmitted to the remote telemetry system. The daily average and maximum 15-minute time-weighted average concentrations of mercury vapor calculated from the raw data are reflected in the above table and in the daily air monitoring report. Raw data from the Jerome® J505 unit within off-site CAMP station WZ-1 is provided as a separate attachment to this daily field report. The WZ-1 station was returned to the equipment rental provider for maintenance and the spare CAMP station will be used at the WZ-1 location beginning on Monday, November 27, 2023.

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 6:21am to 1:36pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 6:26am to 3:14pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 6:47am to 3:02pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 6:35am to 3:30pm.

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 3:19 pm and 3:40 pm.

- 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 soil/fill across the site for off-site disposal.
- ECD will continue installing soil mix columns and/or secant piles for SOE system installation along Beekman and Pearl Street.
- ECD will begin dewatering to accommodate excavation in the southern part of the site.

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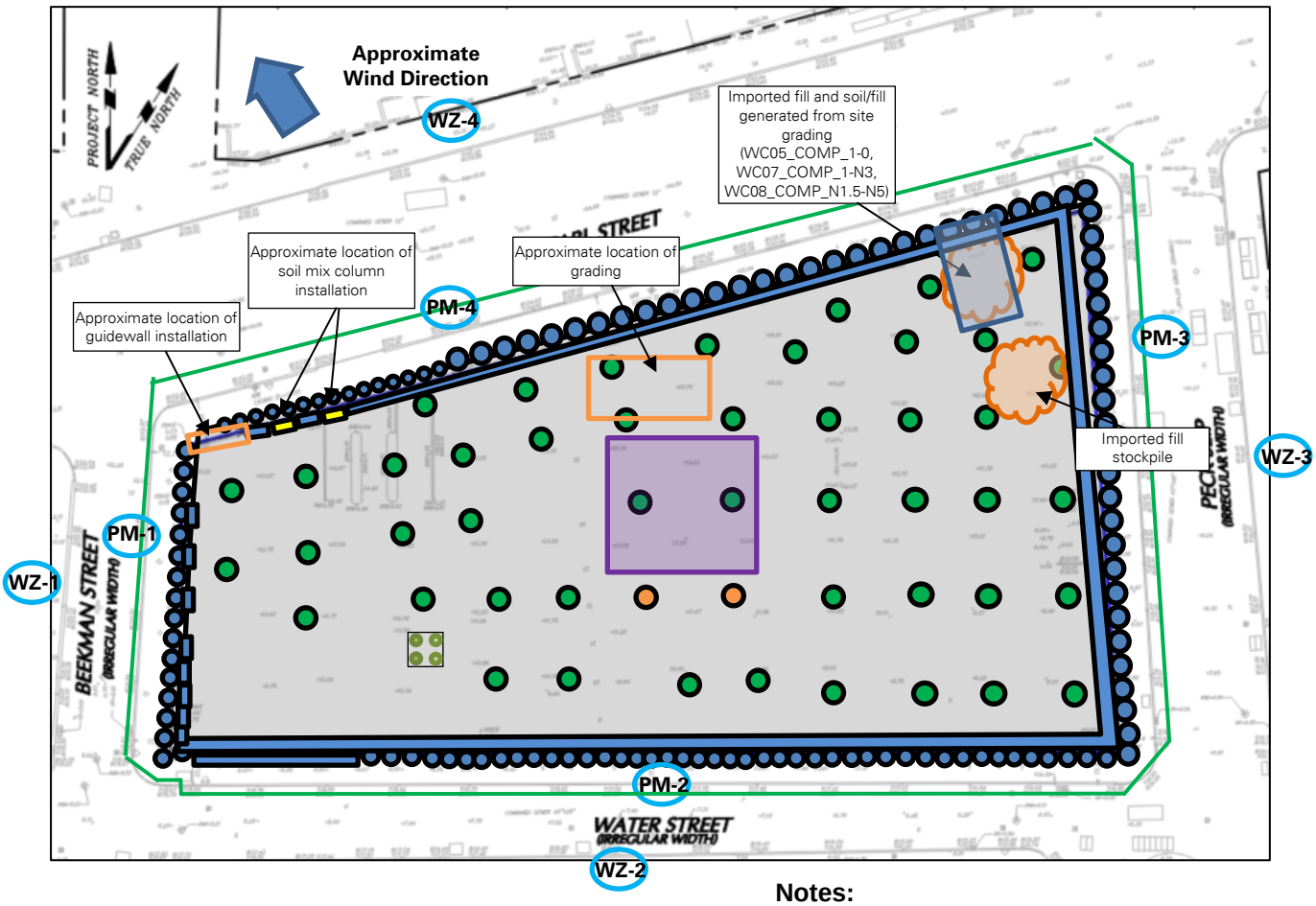
Site MapM



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 Perimeter Construction Fence Location
- Approximate Location of Soldier Pile
- Approximate Location of Soil Mix Column Installed Today
- Approximate Location of Soil Mix Column Installed Previously
- Approximate Previous Excavation Area
- Approximate Excavation Area
- Approximate Location of Documentation Sample
- Approximate Location of Confirmation 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 loading a truck with C&D debris for off-site disposal (facing east)

Photo 2: ECD installing a soil mix column in the northern part of site (facing west)

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