# SITE OBSERVATION REPORT

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| **PROJECT No.:** 170381202<br>**PROJECT:** 250 Water Street<br>**LOCATION:** New York, NY<br>**BCP SITE ID:** C231127 | **CLIENT:**<br>250 Seaport District, LLC<br>c/o The Howard Hughes Corporation | **DATE:** Monday, November 27, 2023<br>**WEATHER:** Cloudy, 35 – 55 °F<br>Wind: NE @ 0.1 – 1.7 mph<br>**TIME:** 6:00am – 5:15pm<br>**MONITOR** Andrew Ashley | |

**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 257**
**Langan** (Environmental/Geotechnical) Andrew Ashley, Michael Cole, Tom Keane
**Suffolk Construction (Suffolk)** (General Contractor) Anthony Galu, Wyatt Favia
**East Coast Drilling, Inc. (ECD)** (Foundation Contractor) Mike Brosnan

**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 northwest 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 northwest part of the site (along Beekman and Pearl Streets, respectively) 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 below graded surface (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 50-foot-long by 30-foot-wide area in the northern part of the site to stabilize the surface for SOE installation.
    - Graded 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. Evidence of impacts was not observed.

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- ECD commenced dewatering at four well points to remove previously accumulated rainwater and to locally remove groundwater to accommodate future excavation activities. The temporary dewatering wellpoints were installed to a depth of about 10 feet bgs in the western part of the site. Groundwater was pumped directly to the dewatering system, consisting of a settling tank, oil-water separator, and filtration system, before being discharged to the New York City Department of Environmental Protection (NYCDEP) combined sewer beneath Peck Slip in accordance with a NYCDEP temporary discharge permit (Permit No. C002547552).

## Material Tracking

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

**Material Import Summary**

| Facility Name<br>Location<br>Type of Material | Stone Industries, Inc.<br>Haledon, NJ<br>1.5/2.5-inch Virgin Stone | | Stone Industries, Inc.<br>Haledon, NJ<br>0.75-inch Virgin Stone | | Impact Reuse & Recovery Center or Impact Materials<br>Jersey City, Lyndhurst/Jersey City, NJ<br>1.5-inch Clean Bluestone | | Impact Reuse & Recovery Center,<br>Lyndhurst, NJ<br>General Fill | | XRDS Recycling LLC<br>Wayne, NJ<br>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 | 0 | 0 |
| 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<br>Location<br>Type of Material | Allocco Recycling<br>Brooklyn, NY<br>Construction & Demolition (C&D) Debris | | IRRC<br>Lyndhurst, NJ<br>C&D Debris | | Earth Efficient MSM<br>East Stroudsburg, PA<br>C&D Debris | | Clean Earth of North Jersey<br>Kearny, NJ<br>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 | 303 | 6,060 | 142 | 2,840 |

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# SITE OBSERVATION REPORT

| Material Export Summary (2 of 3) | | | | | | |
|---|---|---|---|---|---|---|
| **Facility Name<br>Location<br>Type of Material** | **Middlesex County Landfill<br>East Brunswick, NJ<br>Non-hazardous Soil/Fill** | | **Bayshore Soil Management<br>Keasbey, NJ<br>Petroleum-Impacted Soil/Fill** | | **Clean Earth of Carteret, NJ<br>Carteret, NJ<br>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<br>Location<br>Type of Material** | **Clean Earth of North Jersey<br>Kearny, NJ<br>Non-hazardous Soil/Fill** | | **Cycle Chem, Inc.<br>Elizabeth, NJ<br>Hazardous Lead-Impacted Soil/Fill** | | **Harmony Foul Rift (HFR)<br>Belvidere, NJ<br>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 6:30am to 4:18pm. 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 | 0.012 | 0.06 | 0.03 |
| PM-2 | 0.007 | 0.13 | 0.02 |
| PM-3 | 0.007 | 0.00 | 0.00 |
| PM-4 | 0.007 | 0.00 | 0.02 |
| WZ-1 | 0.007 | 0.00 | 0.00 |
| WZ-2 | 0.006 | 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 | 0.047 | 2.06 | 0.55 |
| PM-2 | 0.014 | 0.15 | 0.17 |
| PM-3 | 0.013 | 0.00 | 0.01 |
| PM-4 | 0.015 | 0.01 | 0.07 |
| WZ-1 | 0.017 | 0.01 | 0.00 |
| WZ-2 | 0.012 | 0.00 | 0.01 |
| WZ-3 | 0.012 | 0.00 | 0.02 |
| WZ-4 | 0.013 | 0.03 | 0.02 |

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

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# 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/$m^3$ to 0.09 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 7:12am to 4:32pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 7:14am to 4:37pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 7:01am to 4:48pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 6:56am to 4:39pm.

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 4:18pm and 4:28pm.

- 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 the SOE system along Beekman and Pearl Street.
- ECD will continue dewatering to accommodate excavation in the southern part of the site.

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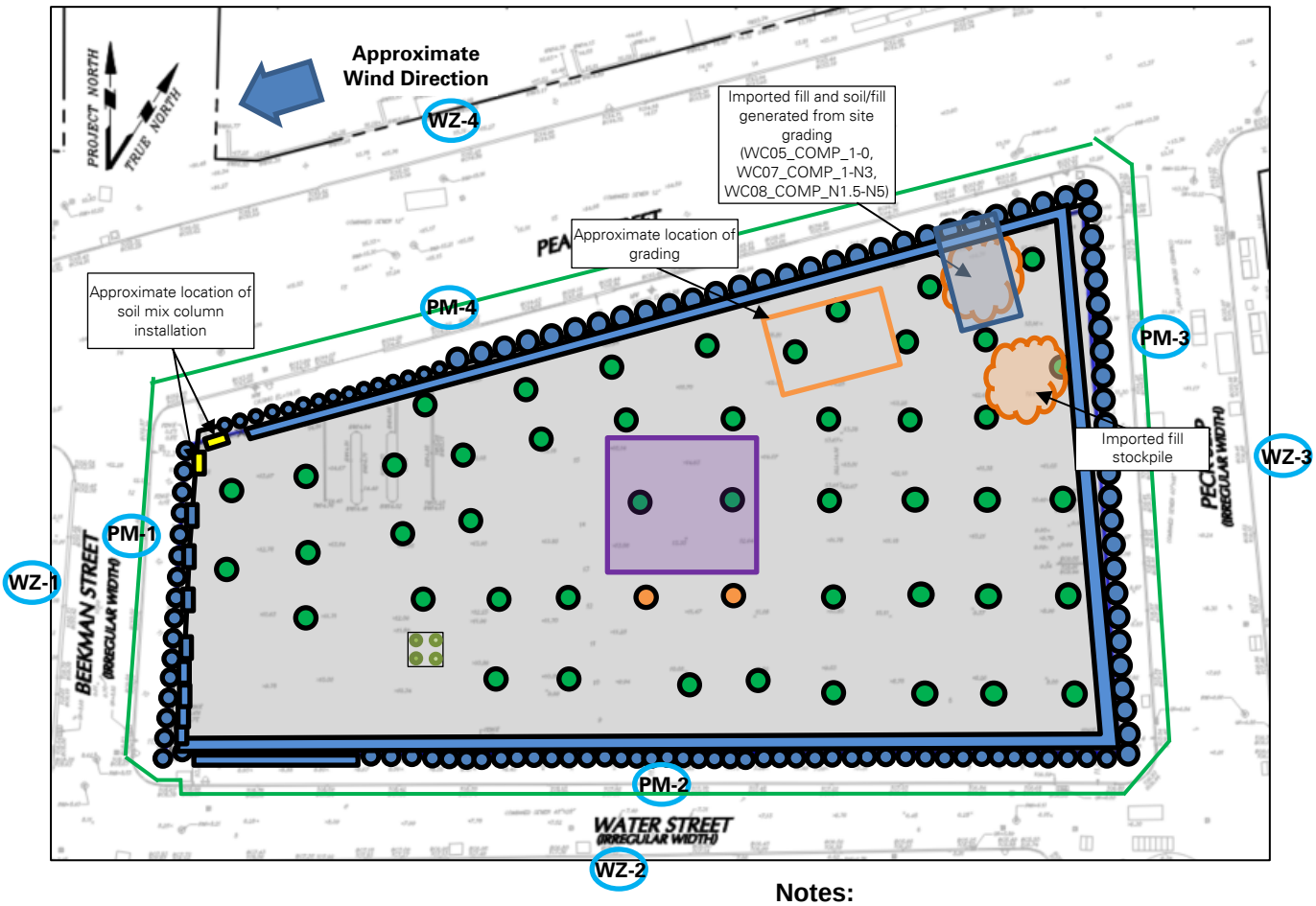
## Site MapM




**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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# SITE OBSERVATION REPORT

**Select Site Photographs:**

**Photo 1:** ECD grading soil/fill in the northern part of the site (facing southeast)

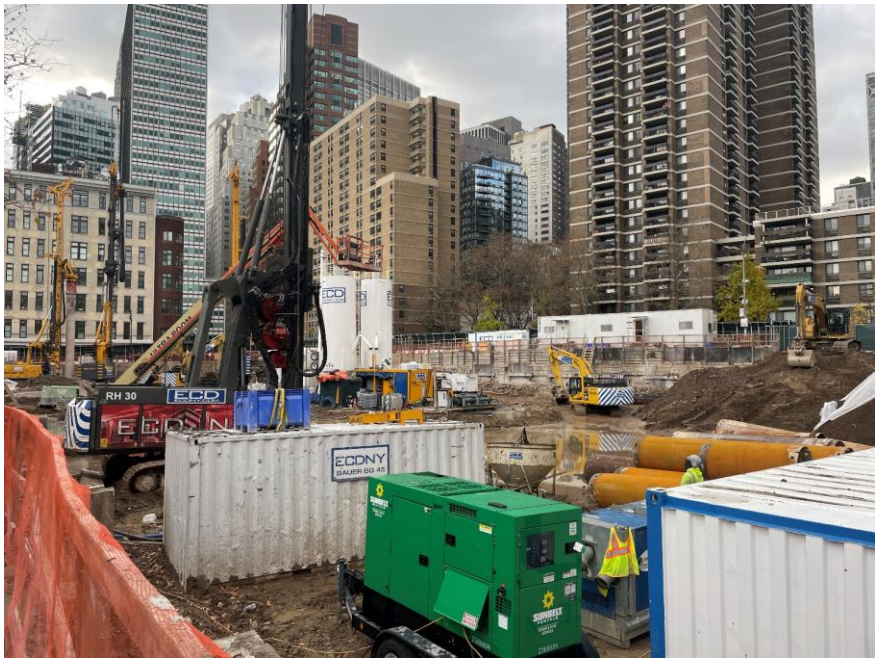


**Photo 2:** General view of the site (facing northwest)

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