SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Wednesday, November 15, 2023
PROJECT: 250 Water Street		**WEATHER:**	Cloudy, 42 – 51 °F Wind: SE @ 0.0 – 1.7 mph
LOCATION: New York, NY		**TIME:**	5:45 am – 6:30 pm
BCP SITE ID: C231127		**MONITOR**	Sophia Misiakiewicz

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 250**
Langan (Environmental/Geotechnical) Sophia Misiakiewicz, Seyena Simpson, Andrew Ashley, Michael Cole, Pradeep Pandey
Suffolk Construction (Suffolk) (General Contractor) Anthony Galu, Wyatt Favia
East Coast Drilling, Inc. (ECD) (Foundation Contractor) Daniel Rogers, Mike Brosnan
New York State Department of Environmental Conservation (NYSDEC) Meghan Medwid
Earth Efficient Henry R. Garcia-Torres

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 one borehole in the southwest part of the site and one borehole 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 one deep soil mix column in the southwest part of the site (along Water Street) and one deep soil mix in the northern part of site (along Pearl Street) for support-of-excavation (SOE) system installation. 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 depths of about 115 and 118 feet below grade surface (bgs), respectively.
    - 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 excavated an about 50-foot-long by 5-foot-wide area to a maximum depth of about 2 feet below the existing grade (about 12 feet below sidewalk grade [bsg]) in the southern part of the site for removal and off-site disposal of soil/fill.
    - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. A faint petroleum-

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like odor and a maximum PID reading of 6.3 parts per million (ppm) was observed. The excavated soil/fill was stockpiled in the northwest part of the site in preparation for off-site disposal.

  - Atmos AC-645® odor/vapor suppressing foam was applied to the excavated area as a precautionary measure.

- ECD excavated three about 5-foot-long by 5-foot-wide areas to a maximum depth of about 2 feet below the existing grade in the central part of the site to facilitate the collection of confirmation endpoint soil samples.
  - Excavated 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 and the excavated soil/fill was temporarily backfilled into the excavation area for future off-site disposal.
- ECD graded soil/fill in an about 50-foot-long by 50-foot-wide area in the western part of the site to stabilize the surface for SOE system installation.
  - 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.

Material Tracking

- ECD exported 16 truckloads (about 320 cubic yards [CY]) of non-hazardous soil/fill for off-site disposal at the Middlesex County Landfill located in East Brunswick, NJ.
- ECD exported six truckloads (about 120 CY) of non-hazardous soil/fill for off-site disposal at the Harmony Foul Rift (HFR) facilty located in Belvidere, NJ
- No material was imported to 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	16	382.13	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.

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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	298	5,940	142	2,840

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	16	320	0	0	0	0
Project Total	383	7,680	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	6	120
Project Total	201	4,020	17	340	135	2,700

Sampling

- Langan collected three confirmation endpoint soil samples (EP16_EL_-1.0, EP17_EL_0.0 and EP12_EL_0.0) and quality assurance/quality control [QA/QC] samples for laboratory analysis of target compound list (TCL) and NYSDEC Part 375 volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) (including 1,4-dioxane), pesticides, herbicides, polychlorinated biphenyls (PCBs), target analyte list (TAL) metals (including hexavalent/trivalent chromium and total cyanide), and/or per- and polyfluoroalkyl substances (PFAS).
- The samples (including those collected on November 14, 2023) were relinquished to Alpha Analytical, an Environmental Laboratory Accredited Program (ELAP)-certified laboratory, under standard chain-of-custody protocols.

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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 6:26am to 5:50pm. 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	0.007	0.02	0.02
PM-2	0.007	0.02	0.01
PM-3	0.005	0.00	0.00
PM-4	0.006	0.01	0.02
WZ-1	0.004	0.00	0.00
WZ-2	0.006	0.00	0.00
WZ-3	0.004	0.00	***** 0.00
WZ-4	0.005	0.02	0.01

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.013	0.29	0.05
PM-2	0.029	0.18	0.04
PM-3	0.007	0.02	0.01
PM-4	0.010	0.05	0.04
WZ-1	0.006	0.00	0.01
WZ-2	0.010	0.00	0.00
WZ-3	0.006	0.02	***** 0.01
WZ-4	0.017	0.06	0.02

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

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Equipment Troubleshooting

***** PM10 and VOC data were not recorded at perimeter CAMP station WZ-3 between 10:23am and 1:24pm due to a connection issue between the power supply and the CAMP station. PM10 and VOCs were not recorded at concentrations above background conditions at off-site CAMP station PM-3, and fugitive dust or odors were not observed migrating off-site. Mercury vapor data from perimeter CAMP station WZ-3 was manually downloaded from the Jerome® J505 unit and is included with this report. 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.

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 7:00am to 6:03pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 7:07am to 6:05pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 7:05am to 5:55pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 7:10am to 6:09pm.

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 5:49pm and 5:58pm.

- 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, Pearl and Water Streets.
- ECD will continue installing tiebacks for the SOE system along Beekman and Pearl Streets.

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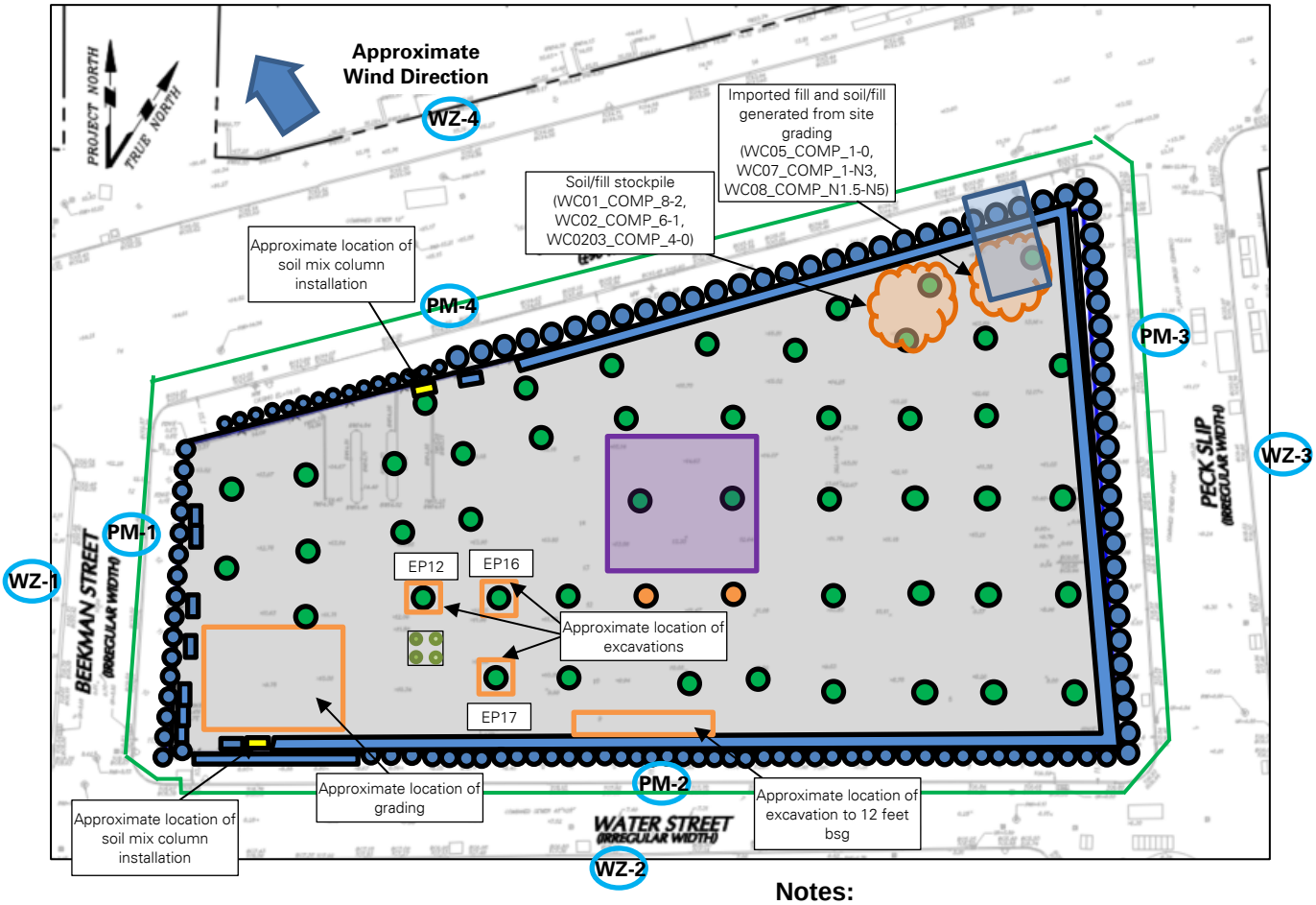
Site MapM



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 applying Atmos AC-645 odor/vapot suppressing foam to soil/fill in the southern part of the site (facing northwest).

Photo 2: ECD installing a soil mix column in the southwest part of site (facing south).

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