

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, October 18, 2022</p> <p>WEATHER: Clear, 50.0 – 59.1 °F Wind: WNW @ 0.3 – 6.6 mph</p> <p>TIME: 6:00 AM – 5:00 PM</p> <p>MONITOR: Brian Kenneally</p>
<p>EQUIPMENT: MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® Hand tools CAT 374F Komatsu 969 Komatsu 228 Takeuchi TB290 JCB 110W Hydradig Wacker Neuson RTSC3 Wacker Neuson OPU6555</p>	<p>PRESENT AT SITE: Day 133 Langan (Environmental/Geotechnical) – Brian Kenneally Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – George Washburn Lendlease (General Contractor) – Marty Cohen 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"> • CCJV excavated an about 20-foot-long by 12-foot-wide area to a maximum depth of about 14 feet below grade surface (bgs) for removal and off-site disposal of hazardous lead-impacted soil/fill in the south-central part of site. Excavated soil/fill was live-loaded into tri-axle dump trucks for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearney, NJ. The trucks were covered with tight-fitting covers and were inspected and washed before leaving the site. <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 odors, staining, or instrumental evidence of contamination was recorded. • CCJV used imported general fill to backfill an about 120-foot-long by 12-foot-wide area and two about 30-foot-long by 30-foot-wide areas in the south-central and north-central parts of the site, respectively. • CCJV installed a temporary cover, consisting of an about 1-foot-thick layer of imported general fill underlain by geotextile filter fabric, in an about 60-foot-long by 30-foot-wide area along the berm of the excavation area in the northwestern part of the site. • CCJV relocated previously removed steel sheet piles for staging in the western part of the site to facilitate off-site transport at a later date. • CCJV covered exposed soil/fill that has not been confirmed to meet Track 2 remediation criteria and construction and demolition (C&D) debris with Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover. 		
<p>Cc:</p>	<p>M. Raygorodetsky, P. McMahon, M. Au</p>	<p>By: Brian Kenneally</p> <p style="text-align: center;">LANGAN</p>

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Material Tracking

- CCJV exported six truckloads (about 120 cubic yards [CY]) of hazardous lead-impacted soil/fill for off-site disposal at the CENJ, located in Kearny, NJ.
- CCJV imported 28 truckloads (682.63 tons) of general fill from the IRRC facility, located in Lyndhurst, 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	
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	28	682.63
Project Total	8	184.42	0	0	13	289.08	271	6,637.65
NYSDEC Approved:	1,800 tons*				720 tons*		7,500 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 5,000 CY and a conversion factor of 1.5 is applied.

Material Export Summary (1 of 2)

Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous 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	6	120	0	0
Project Total	5	85	40	800	95	1,900	216	4,320

Material Export Summary (2 of 2)

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	261	5,220	267	5,340	66	1,320

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Sampling Activities

- Langan collected two confirmation endpoint soil samples (EP37_EL_-3.0 and EP38_EL_-3.0) and associated quality assurance/quality control (QA/QC) samples for laboratory analysis of NYSDEC Part 375/target compound list (TCL) volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, herbicides, target analyte list (TAL) metals (including hexavalent/trivalent chromium and total cyanide), per- and polyfluoroalkyl substances (PFAS), and/or 1,4-dioxane.
- Samples were relinquished to Alpha Analytical, Inc., 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 and at work zones at nine total locations for mercury vapor, VOCs and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. 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/m³, 5.0 parts per million [ppm], and 0.100 mg/m³ respectively).

Background Concentrations

Prior to implementation of ground-intrusive work each day, 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 ranged from 0.00 µg/m³ to 0.25 µg/m³.
- 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	0.008	0.0	0.01
PM-2	0.018	0.0	0.01
PM-3	0.009	0.0	0.00
PM-4	0.004	0.0	0.00
PM-5	0.002	0.0	0.01
PM-6	0.011	0.0	0.01
WZ-1	0.011	0.0	0.01
WZ-2	0.008	0.0	0.01
WZ-3	0.007	0.0	0.01

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
Action Level	0.100 mg/m³	5.0 ppm	1.00 µg/m³
PM-1	0.025	0.0	0.03
PM-2	0.039	0.0	0.02
PM-3	0.035	0.0	0.01
PM-4	0.011	0.0	0.02
PM-5	0.005	0.0	0.03
PM-6	0.025	0.0	0.02
WZ-1	0.024	0.0	0.03
WZ-2	0.011	0.0	0.03
WZ-3	0.021	0.0	0.03

•mg/m³ = milligrams per cubic meter •ppm = parts per million •µg/m³ = micrograms per cubic meter

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Equipment Troubleshooting

- PM10 concentrations were not recorded at off-site CAMP station WZ-1 between 1:47pm and 2:04pm (18 minutes) due to a depleted battery causing the DustTrak unit to shut down. Data logging resumed at 2:05pm following replacement of the battery. Fugitive dust was not observed migrating from the site during this time.

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/m³ to 0.25 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were at or below background concentrations throughout the work day.

CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:51am to 4:09pm during backfilling activities in the north-central part of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 6:45am to 4:09pm due to exposed soil/fill located within 20 feet of the eastern site boundary.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 6:45am to 4:09pm during backfilling activities in the south-central part of the site.

Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued at 4:08pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 µg/m³ to 0.02 µg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- CCJV will continue excavation and off-site disposal of soil/fill in the central and southern parts of the site.
- CCJV will backfill over-excavated areas of the site using imported general fill to match the surrounding grade.
- Langan will continue collection of confirmation endpoint soil samples across the site.

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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 C&D Stockpile
- Approximate Location of General Fill Stockpile
- Approximate Location of Stockpiled Virgin Stone
- Approximate Excavated Soil/Fill Stockpile

Notes:

1) Locations of air monitoring stations are approximate.

- Approximate Location of 55-gallon drum
- Approximate Location of Soldier Pile
- Approximate Perimeter Construction Fence Location
- Previous Excavation Area
- Approximate Excavation Area
- Approximate Backfill Area
- Approximate Location of Endpoint Sample
- Approximate Location of Previously Collected Endpoint Sample
- Approximate Location/Extents of Temporary Cover

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Select Site Photographs:



Photo 1: CCJV installing a temporary cover, consisting of imported general fill underlain by geotextile filter fabric, in the northwestern part of the site (facing south)



Photo 2: CCJV applying Atmos® AC-645 dust/vapor suppressing foam to exposed soil/fill for the temporary overnight cover (facing southwest)

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