

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: Monday, August 15, 2022</p> <p>WEATHER: Clear, 70 - 83 °F Wind: N @ 0 - 8.8 mph</p> <p>TIME: 6:00 AM - 6:30 PM</p> <p>MONITOR: Maitland Robinson, Brian Kenneally, Eddie Cai</p>
<p>EQUIPMENT: MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® Hand tools CAT 374F Komatsu 969 Komatsu 228 Takeuchi TB290</p>	<p>PRESENT AT SITE: Day 69 Langan (Environmental/Geotechnical) – Maitland Robinson, Brian Kenneally, Eddie Cai, Lisa Cristiano, Kevin Leong LendLease (Construction Manager) – Marty Cohen Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – George Washburn New York State Department of Environmental Conservation (NYSDEC) – Rafi Alam UBS (Fence Contractor)</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 10-foot-long by 4-foot-wide area to about 16 feet below grade surface (bgs) to expose soldier piles for T-bracket installation along the northern boundary of the site (Pearl Street) within the mercury impacted area (WC05). <ul style="list-style-type: none"> ○ Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapors using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors or staining, was observed. Excavated material was temporarily stockpiled within the mercury impacted area, and following T-bracket installation, the excavated material was backfilled in the area where it originated from. ○ A maximum instantaneous reading of 2.95 µg/m³ was detected in the excavation area using a handheld J505 mercury vapor analyzer. Mercon X was actively sprayed during excavation. Additionally, mercury vapor concentrations at the closest perimeter CAMP stations (PM-5, PM-6) and off-site CAMP station (WZ-1) did not approach or exceed the action level established by the CAMP (1.00 µg/m³) during this excavation. • CCJV backfilled behind lagging along the eastern boundary (Peck Slip) with imported general fill from Impact Reuse and Recovery Center (IRRC) in Lyndhurst, NJ. • CCJV installed 4 tie-back rods along the eastern site boundary (Peck Slip). • CCJV poured grout into previously installed support of excavation (SOE) soldier piles along the southern boundary of the site (Water Street). • CCJV continued installation of corner bracing in the northeast corner of the site. 		
<p>Cc:</p>	<p>M. Raygorodetsky, P. McMahon, M. Au</p>	<p>By: Brian Kenneally</p> <p style="text-align: center;">LANGAN</p>

SITE OBSERVATION REPORT

- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of each work day.

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Material Tracking

- No material was imported to the site.
- No material was exported from 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	7	161.51	0	0	2	90.02	14	343.21
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

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		Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill		Bayshore Soil Management Keasbey, NJ Petroleum Contaminated 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)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0	0	0	0	0	0	0
Project Total	5	85	25	540	15	300	173	3,460	173	3,460	66	1320

Sampling Activities

- No samples were collected.

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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, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for VOCs, and mercury vapor that approached or exceeded the action level established by the CAMP (5.0 ppm, and 1.00 $\mu\text{g}/\text{m}^3$, 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 $\mu\text{g}/\text{m}^3$ to 0.03 $\mu\text{g}/\text{m}^3$
- 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	0.020	0.0	0.01
PM-2	0.026	0.0	0.01
PM-3	0.018	0.2	0.00
PM-4	0.074	0.2	0.01
PM-5	0.026	0.1	0.00
PM-6	0.019	0.0	0.01
WZ-1	0.020	0.0	0.01
WZ-2	0.012	0.4	0.04
WZ-3	0.010	0.0	0.00

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor ($\mu\text{g}/\text{m}^3$)
Action Level	0.100 mg/m^3	5.0 ppm	1.00 $\mu\text{g}/\text{m}^3$
PM-1	0.053	0.0	0.02
PM-2	0.064	0.0	0.02
PM-3	0.053	0.4	0.00
PM-4	*0.438 @ 10:30am	0.4	0.02
PM-5	0.044	0.3	0.01
PM-6	0.073	0.0	0.03
WZ-1	0.038	0.0	0.02
WZ-2	0.029	0.7	0.12
WZ-3	0.029	0.1	0.01

● 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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- *PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP (0.100 mg/m³) from 10:17am to 11:07am, and intermittently from 2:09pm to 5:01 (160 minutes in total). The exceedance was caused by welding activities upwind of the perimeter CAMP station PM-4 in the northeastern corner of the site, and were not the result of ground-intrusive activities associated with soil/fill at the site. Fugitive dust was not observed migrating from the site during this time. Additionally, PM10 concentrations at the closest off-site CAMP station (WZ-2) did not approach or exceed the action level established by the CAMP (0.100 mg/m³) during this time.

Equipment Troubleshooting

- The DustTrak II within perimeter CAMP station PM-3 did not record PM10 concentrations at 8:29am during an equipment swap following consistent negative readings on the device. The unit was replaced and recording of PM10 concentrations resumed at 8:30am.
- The Jerome® J505 mercury vapor analyzer at off-site CAMP station WZ-2 recorded concentrations of mercury vapor ranging from 0.0 to 0.17 µg/m³ from about 2:33pm to 6:04pm. Fifteen-minute average concentrations did not exceed 0.12 µg/m³ (CAMP action level 1.00 µg/m³). The handheld Jerome® J505 unit was used to screen the area and recorded a reading of 0.0 µg/m³. The filter within the Jerome® J505 unit at WZ-2 will be replaced tomorrow.

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 0.0 µg/m³ to 0.7 µg/m³ during excavation in the mercury impacted area (WC05). Mercon-X was actively sprayed during excavation.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:45am to 5:54pm during excavation activities along the northern boundary of the site
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 6:45am to 5:53pm due to exposed soil/fill within 20 feet of the eastern fence line.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 6:45am to 5:53pm due to exposed soil/fill within 20 feet of the southern fence line.

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 between 5:15pm and 5:27pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.0 µg/m³ to 0.07 µg/m³.
- VOC concentrations at each CAMP station was recorded at 0.0 ppm.

Anticipated Activities

- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.

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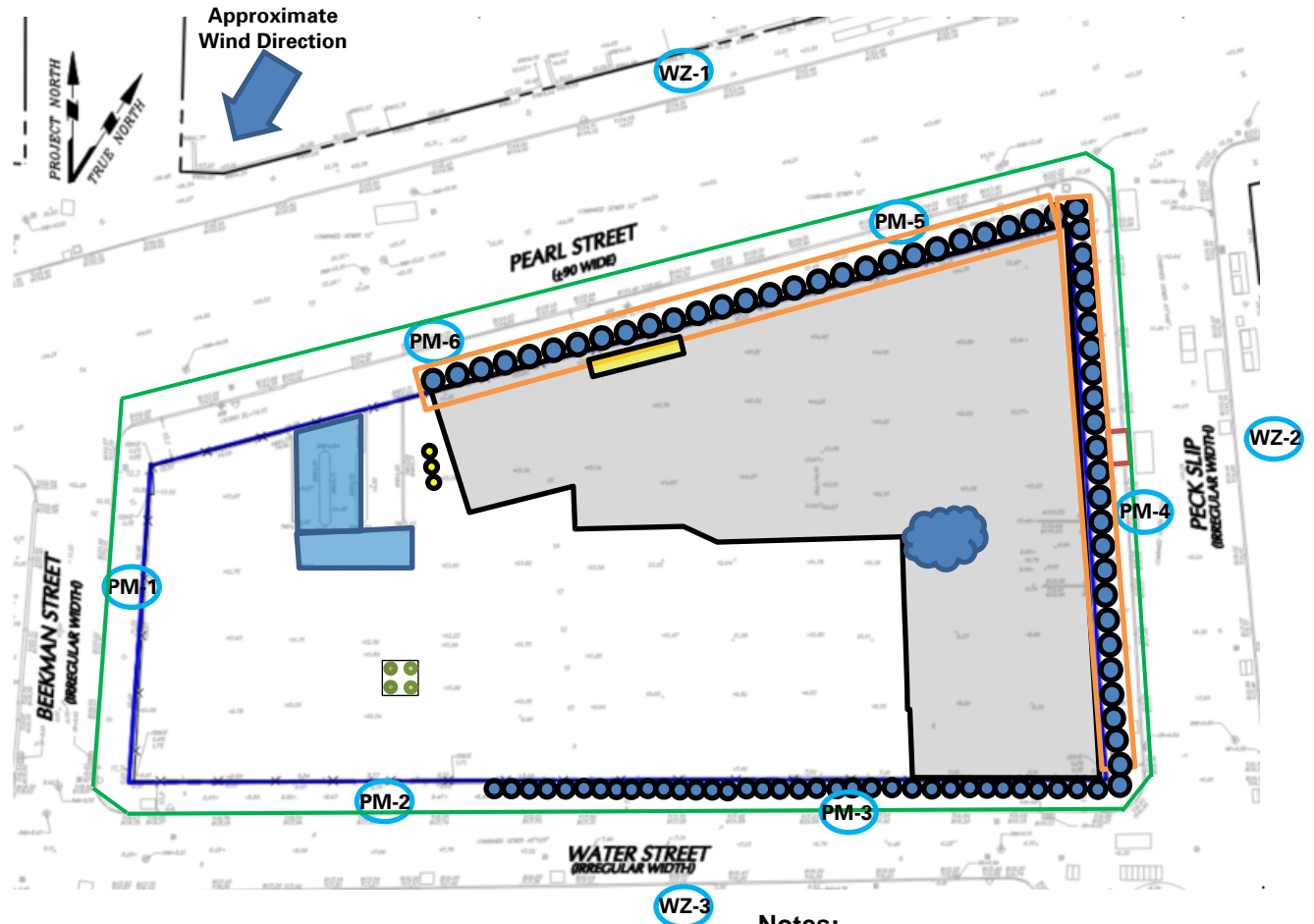
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- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will continue installation of corner bracing in the northeast corner of the site.
- CCJV will continue excavation and off-site disposal of soil/fill in the eastern and southcentral part of the site.

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Site Map









Notes:

1) Locations of air monitoring stations are approximate.

Legend:

-  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 Soil/Fill Stockpile
-  Approximate location of USTs

-  Approximate Location of Stockpiled Virgin Stone
-  Approximate Location of 55-gallon drum
-  Approximate Location of Soldier Pile
-  Approximate Perimeter Construction Fence Location
-  Previous Excavation Area
-  Approximate Excavation Area

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Select Site Photographs:

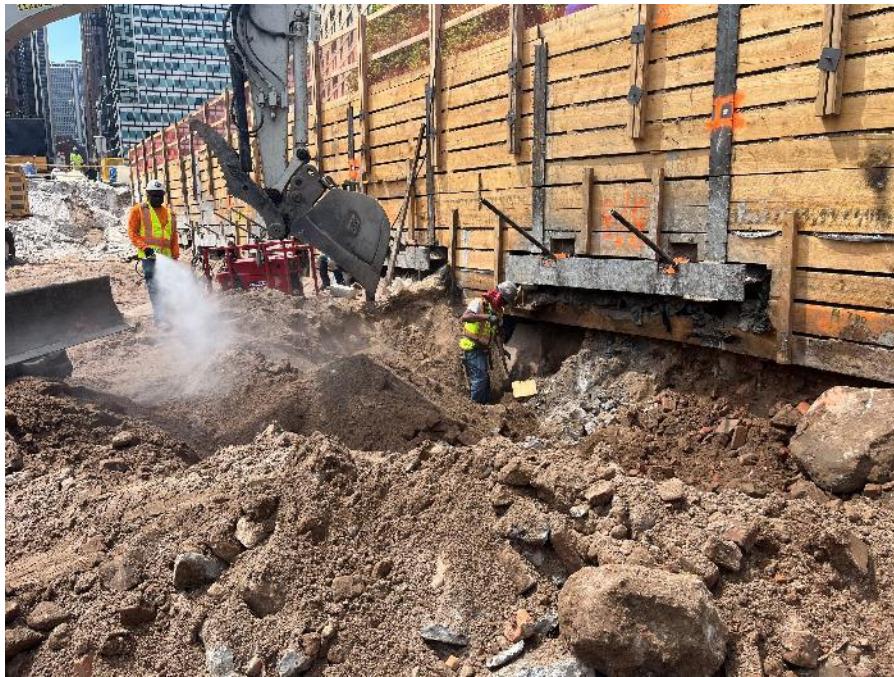


Photo 1: CCJV excavating soil/fill within waste characterization cell WC05 to expose soldier piles for T-bracket installation (facing northwest)



Photo 2: CCJV spraying water to mitigate fugitive dust migration (facing north)

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