SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Saturday, May 21, 2022
PROJECT: 250 Water Street		**WEATHER:**	Sunny, 64.5 – 90.6˚F Wind: SW @ 0.4 – 5.4 mph
LOCATION: New York, NY		**TIME:**	7:00 AM – 6:00 PM
BCP SITE ID: C231127		**MONITOR:**	Caroline Devin, Mat Frankel

EQUIPMENT:
MiniRAE 3000 PID
DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
Komatsu 969
APE Model 150

PRESENT AT SITE: **Day 20**
Langan (Environmental/Geotechnical) – Caroline Devin, Mat Frankel, Michael Au, Joe Como
LendLease (Construction Manager) – Marty Cohen
Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – George Washburn
AKRF Inc. (Archaeologist)

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to document remediation and construction activities in accordance with the New York State Department of Environmental Conservation (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

- CCJV torch-cut previously installed steel sheet piles to accommodate installation of a future pile cap in the southwestern portion of the site.
- CCJV torch-cut previously installed foundation piles in the southwestern portion of the site.
- CCJV continued to weld four steel walers along the interior of the steel sheet pile wall for support-of-excavation (SOE) around the future pile cap area.
- CCJV excavated an approximately 35-foot-long by 25-foot-wide area to a maximum depth of about 11 feet below grade surface (bgs) immediately north of the previously installed sheet piles to provide access for an excavator.
    - Excavated material consisted of hazardous lead-impacted soil/fill and was screened for visual, olfactory and instrumental evidence of impacts using a photoionization detector (PID) and Jerome® J505 mercury analyzers. No evidence of impacts were observed. Excavated material was stockpiled in an about 20-cubic-yard roll-off container, which was covered with polyethylene sheeting in preparation for off-site disposal.
- CCJV covered exposed soil/fill, stockpiled 2.5-inch virgin stone, roll-off containers and the dewatering tank with polyethylene sheeting during periods of inactivity and at the conclusion of site activities.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Lauren Roper, Brian Kenneally
			LANGAN

SITE OBSERVATION REPORT

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 2.5-inch Virgin Stone**	
Quantities	No. of Loads	Approx. Volume (Tons)
Today	0	0
Total	5	115.55

Material Export Summary				
Facility Name Location Type of Material	**Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris**		**Clean Earth of North Jersey Kearny, NJ Hazardous Lead Soil**	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0
Total	1	5	9	180

Sampling

- No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Caroline Devin, Mat Frankel
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring at the perimeter of the site at six locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities. Prior to implementation of ground-intrusive work, 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 0.04 µg/m^3 to 0.09 µg/m^3.
- Background concentration of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

Daily Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.059	0.0	0.1
PM-2	0.066	0.0	0.0
PM-3	0.061	0.5	0.0
PM-4	0.063	0.3	0.1
PM-5	0.042	0.1	0.1
PM-6	0.057	0.0	0.0
WZ-1	0.075	0.0	0.2

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.079	0.0	0.5
PM-2	0.084	0.0	0.0
PM-3	0.080	2.8	**0.2
PM-4	0.078	0.9	0.7
PM-5	0.058	0.2	**0.3
PM-6	0.084	0.1	0.0
WZ-1	*0.217	0.0	0.7

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

- *Elevated concentrations of PM10 were generally observed throughout the work day and were attributed to poor air quality in New York City (listed as "Moderate" in the air quality index [AQI]). Work zone action levels are not included in the site CAMP, however, particulate concentrations exceeded the perimeter thresholds from 11:29am to 11:30am, 11:55am to 12:03pm, 12:32pm to 12:45pm and 2:46pm to 2:52pm during welding of steel walers to the interior of the steel sheet pile wall.
  - Work was temporarily halted in each instance and dust suppression was implemented by spraying exposed soil/fill with municipally supplied water.
  - CAMP PM10 action levels were not exceeded at the off-site PM-2 station throughout the work day.
  - No fugitive dust was observed to be leaving the site.
- **Instantaneous mercury vapor concentrations were recorded at concentrations ranging from 0.1 µg/m^3 to 1.2 µg/m^3 at perimeter CAMP station PM-3 (between 1:47pm and 1:52pm) and from 0.1 µg/m^3 to 0.7 µg/m^3 at perimeter CAMP station PM-5 (between 12:53pm and 1:04pm), which were located over 100 feet away from the work area along Water Street and Pearl Street, respectively. During this time, no ground-intrusive

SITE OBSERVATION REPORT

activities were ongoing at the site, however, work was halted at 1:05pm, Mercon-X® was sprayed on exposed soil/fill and the work area was temporarily covered with polyethylene sheeting. The instantaneous mercury vapor concentrations did not result in a 15-minute time-weighted average exceedance of the CAMP action levels and the dedicated CAMP monitor investigated the elevated mercury vapor readings upon notification via the remote telemetry system.

- The Jerome® J405 mercury vapor analyzer within perimeter CAMP station PM-3 was disconnected and allowed to cool down from 1:53pm to 2:16pm. During this time, the handheld Jerome® J505 unit was stationed at perimeter station PM-3 and mercury vapor concentrations ranged from 0.0 µg/m^3 to 0.1 µg/m^3. The Jerome® J405 unit was reconnected and resumed data logging at 2:17pm.
- The Jerome® J405 mercury vapor analyzer within perimeter CAMP station PM-5 was disconnected and allowed to cool down from 1:05pm to 2:20pm. During this time, the work zone Jerome® J505 unit was stationed at perimeter station PM-5 and mercury vapor concentrations ranged from 0.0 µg/m^3 to 1.2 µg/m^3. The Jerome® J405 unit was reconnected and resumed data logging at 2:21pm.
  - The work zone Jerome® J505 mercury vapor analyzer was observed to be recording consistently higher readings than the handheld unit and is anticipated to be replaced on Tuesday, May 24, 2022. The instantaneous reading of 1.2 µg/m^3 was recorded during a one-minute sampling interval and did not result in a 15-minute time-weighted average exceedance of the CAMP action level.
- Work resumed at approximately 2:33pm, when mercury vapor concentrations were confirmed to return to background conditions.

- Langan used two handheld Jerome® J505 mercury analyzers to monitor ambient air conditions throughout the site and within the work zone.
  - Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m^3 to 0.05 µg/m^3.
  - Instantaneous mercury vapor concentrations within the work zone ranged from 0.0 µg/m^3 to 2.5 µg/m^3.
    - Intermittent instantaneous mercury vapor readings were recorded at concentrations ranging from 0.8 and 2.5 µg/m^3 during torch-cutting and welding activities using acetylene gas.
    - The intermittent instantaneous mercury vapor readings did not result in a 15-minute time-weighted average exceedance of the CAMP action level.
- Langan used a handheld PID to monitor VOC concentrations within the work zone and throughout the site. VOC concentrations were not detected above background concentrations throughout the work day.
- The PID unit within perimeter CAMP station PM-3 was recalibrated at 1:35pm and 2:23pm due to elevated VOC readings while the handheld unit and other perimeter stations were recording concentrations ranging from 0.0 ppm to 0.2 ppm. VOC concentrations returned to background conditions after recalibration in each instance.
- Perimeter air monitoring station PM-2 was relocated to the southern sidewalk of Water Street from 8:22am to 3:12pm.
- Prior to discontinuing the CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station. CAMP stations were discontinued at 3:12pm at the conclusion of ground-intrusive activities.
  - Mercury vapor concentrations at each CAMP station were recorded at 0.00 µg/m^3.
  - VOC concentrations at each CAMP station were recorded at 0.0 ppm.

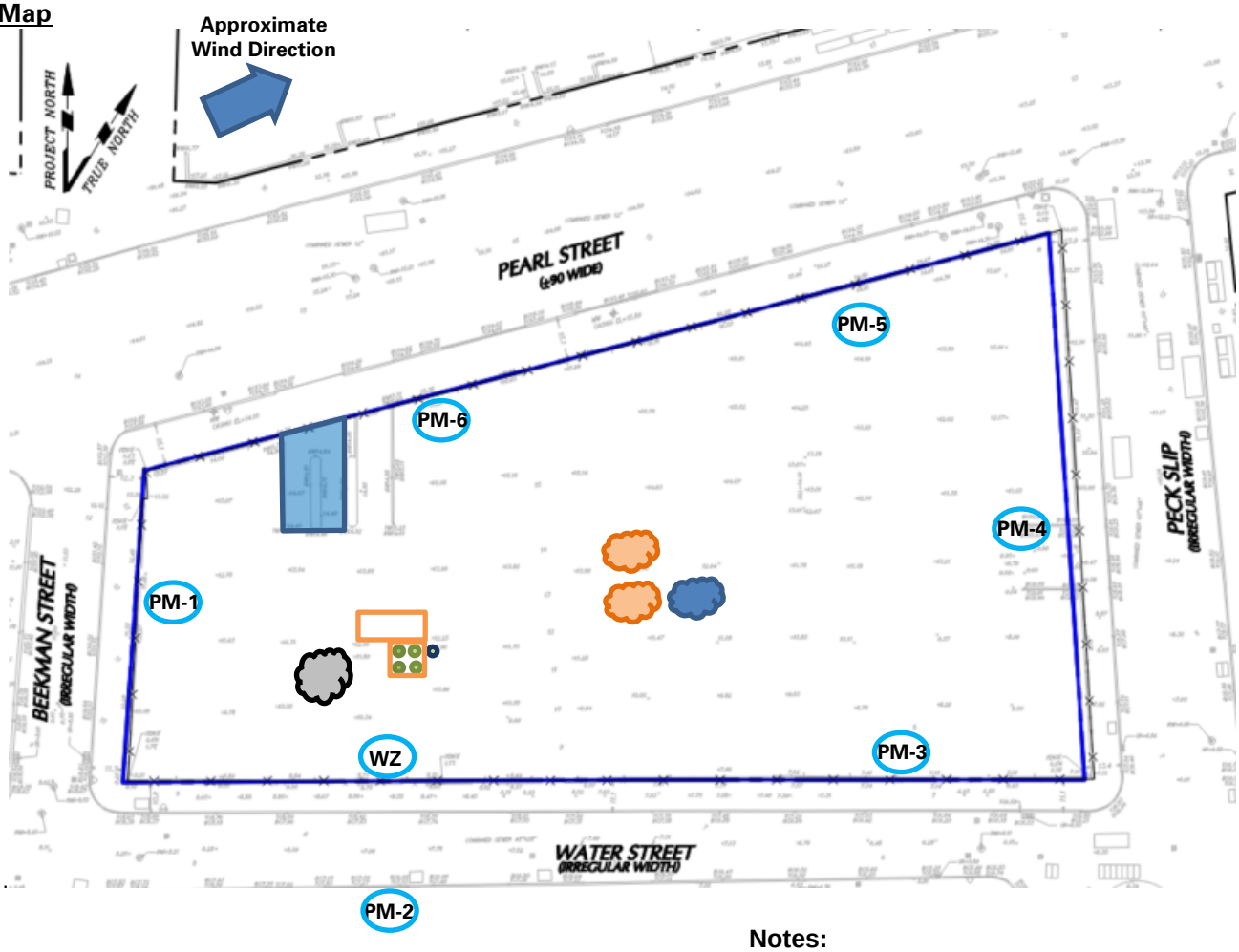
Anticipated Activities

- CCJV will continue torch-cutting previously installed foundation piles in the southwestern portion of the site.
- CCJV will continue excavating soil/fill within the previously installed steel sheet pile wall to accommodate installation of the future pile cap.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Caroline Devin, Mat Frankel
			LANGAN

SITE OBSERVATION REPORT

Site Map



Legend:

- PM-1 — Approximate Location of Air Monitoring Station
- Approximate Work Area
- Approximate Location of Future Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Settling Tanks
- Approximate Location of Truck Tracking Pad
- Approximate Location of Dewatering Well
- Approximate Location of C&D Container
- Approximate Location of Soil Container
- Approximate Location of Stockpiled Virgin Stone

Notes:
1) Locations of air monitoring stations are approximate.

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Caroline Devin, Mat Frankel
			LANGAN

SITE OBSERVATION REPORT

Select Site Photographs:

Photo 1: View of CCJV implementing dust suppression measures in the southwestern portion of the site (facing south)

Photo 2: View of CCJV covering exposed soil/fill in the southwestern portion of the site (facing north).

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Caroline Devin, Mat Frankel
			LANGAN