

## SITE OBSERVATION REPORT

<b>PROJECT No.:</b> 170381202		<b>DATE:</b> Tuesday, August 18, 2020	
<b>PROJECT:</b> 250 Water Street	<b>CLIENT:</b> 250 Seaport District, LLC	<b>WEATHER:</b> Sunny, 66-84 °F Wind: WNW @ 0-7 mph	
<b>LOCATION:</b> New York, NY		<b>TIME:</b> 6:45 am – 3:45 pm	
<b>BCP SITE ID:</b> C231127		<b>CONTRACTOR:</b> AARCO Environmental Services Corp. (AARCO)	
<b>CONTRACTOR:</b> AARCO Environmental Services Corp. (AARCO)		<b>LANGAN REP. :</b> Tyler Zorn Thomas Schiefer	
<b>EQUIPMENT:</b> Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX		<b>PRESENT AT SITE:</b> Tyler Zorn, Thomas Schiefer – Langan Rohn Dixon, Jose Garcia – AARCO Environmental Services Corp. <b>RI Day 12</b>	
<b>OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:</b>			
<p>Langan began implementing Phase 4 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1).</p> <p><b>Site Activities</b></p> <ul style="list-style-type: none"> <li>• AARCO used a Geoprobe 7822 DT drill rig with 4- foot-long Macro-Core® samplers to advance five soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis. <ul style="list-style-type: none"> <li>○ Boring SB13: Boring was advanced to 20 feet below grade surface (bgs). No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD).</li> <li>○ Boring SB16: Boring was advanced to refusal at about 12 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD.</li> <li>○ Boring SB21: Boring was advanced to refusal at 11 feet bgs. Wood was identified in the cutting shoe at the refusal depth. Petroleum-like odors, staining, and PID readings up to 68.2 ppm were observed from about 6 to 8 feet bgs. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD.</li> <li>○ Boring SB22: Boring was advanced to refusal at 10 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD.</li> </ul> </li> </ul>			
<b>Cc:</b>	J. Yanowitz, P. McMahon, M. Raygorodetsky	<b>By:</b>	Tyler Zorn, Thomas Schiefer
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- Boring SB28: Boring was advanced to 20 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations were not identified above background with the Jerome J505. Total mercury concentrations evaluated with the XRF were less than the LOD.
- AARCO used a Geoprobe 7822 DT drill rig to install monitoring well MW28.
  - MW28 consists of a 2-inch diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 4 to 14 feet bgs. MW28 will be developed at a future date.
- All soil borings were backfilled with clean drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt after sampling was completed

### **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.
- No investigation derived waste (i.e. soil cutting or groundwater) was generated during site activities.

### **Sampling**

Soil samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
  - SB13: 0-2, 4-6, and 12-14 feet bgs
  - SB16: 0-2, 6-8, and 10-12 feet bgs
  - SB21: 0-2, 6-8, and 9-11 feet bgs
  - SB22: 0-2, 4-6, and 8-10 feet bgs
  - SB28: 0-2, 4-6, and 12-14 feet bgs
- The following sample depths were placed on hold for analysis of total mercury:
  - SB21: 4-6 feet bgs
  - SB22: 2-4 feet bgs
- Six quality assurance/quality control soil sample (a trip blank, equipment blank, field blank, duplicate, and MS/MSD) was collected and submitted for analysis.

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### CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m<sup>3</sup>) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m<sup>3</sup> for mercury vapor.

- The fifteen-minute average concentration of particulate matter smaller than 10 microns in diameter (PM10) exceeded action levels from 9:18 am to 9:33 am at air monitoring station PM-6. Air monitoring station PM-6 was being used as the work zone air monitoring station during this time because work was being conducted within 20 feet of the site boundary. Air monitoring station WZ-1 was located on the southern Water Street sidewalk. The fifteen-minute average concentration action level for PM10 was not exceeded at air monitoring station WZ-1. Work was stopped and the source of the exceedance was identified. The exceedance was caused by cutting asphalt to install a monitoring well cover for monitoring well MW28. Work resumed with increased dust suppression after the fifteen-minute average concentration at PM-6 dropped below the CAMP action level.

Daily Average Concentrations			
Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.016	0.0	0.0
PM-2	0.031	0.1	0.0
PM-3	0.017	0.0	0.0
PM-4	0.010	0.0	0.0
PM-5	0.010	0.8	0.0
PM-6	0.039	0.0	0.0
WZ-1	0.011	0.0	0.0

mg/m<sup>3</sup> = milligrams per cubic meter

ppm = parts per million

µg/m<sup>3</sup> = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.035	0.0	0.0
PM-2	0.106	0.2	0.0
PM-3	0.026	0.0	0.0
PM-4	0.014	0.0	0.0
PM-5	0.019	1.9	0.9
PM-6	0.526	0.0	0.1
WZ-1	0.034	0.0	0.2

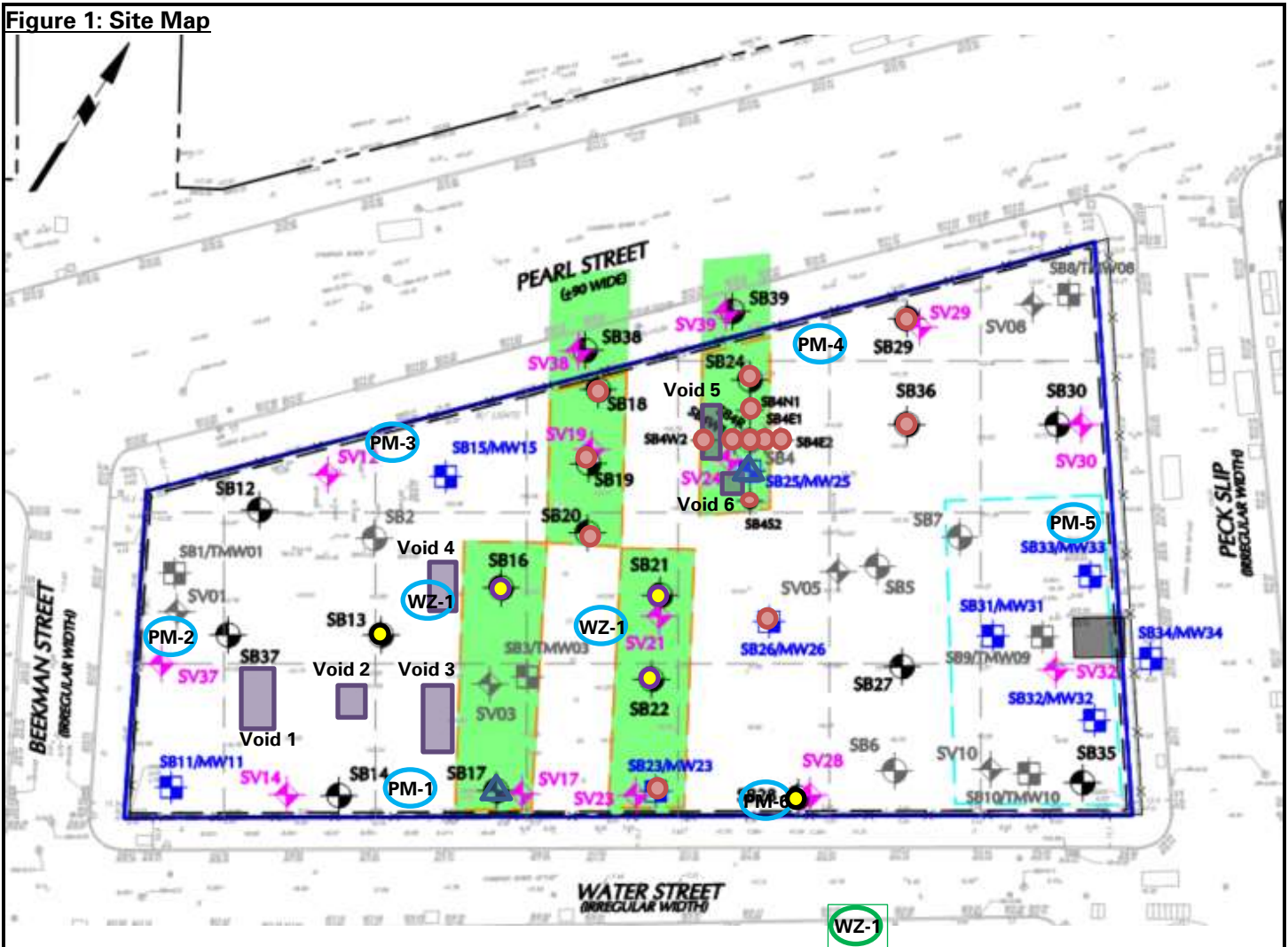
### Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells at the site.

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Figure 1: Site Map



**Legend:**

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of soil borings advanced to refusal
- Approximate location of previously sampled soil borings
- ▲ Approximate location of completed soil borings and monitoring well

- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of work zone air monitoring station

**Notes:**

1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

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### Select Site Photographs:



Photo 1: View of soil from boring SB21.



Photo 2: Perimeter CAMP station PM-6 and off-site CAMP station WZ-1 along Water Street during the drilling of boring SB28 (facing east).

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Photo 3: AARCO drilling boring SB16 (facing east).



Photo 4: AARCO drilling boring SB22 (facing northeast).

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