

SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127	CLIENT: 250 Seaport District, LLC	DATE: Wednesday, February 23, 2022 WEATHER: Sunny, 58.4-68.0 °F Wind: NNE @ 0.5-7.0 mph TIME: 6:00 am – 7:00 pm
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Laura Grose
EQUIPMENT: Geoprobe® 7822DT Drill Rig Geoprobe® 8140LC Drill Rig MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505®	PRESENT AT SITE: Remedial Design Investigation Day 5 Langan Laura Grose, Kaitlyn Gioia, Yaskira Mota Diaz, Ellie Seery, Ali Reach, Lauren Roper AARCO Jose Garcia, Julio Cahyeya, Ron Dixon New York State Department of Environmental Conservation (NYSDEC) Rafi Alam, Aaron Fischer	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementation of the NYSDEC-approved February 11, 2022 Remedial Design Investigation Work Plan (RDIWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127). Site Activities <ul style="list-style-type: none"> • AARCO used a Geoprobe® 7822DT direct-push drill rig and a Geoprobe® 8140LC sonic drill rig with 4-foot-long Macro-Core® samplers and plastic liners to advance 11 soil borings for waste characterization soil sampling in the southeast and central parts of the site. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples: <ul style="list-style-type: none"> ○ WC09C was advanced to a depth of about 15 feet below grade surface (bgs). Material was screened for odors, staining and organic vapors using a PID. No evidence of impacts were observed. ○ WC09D was advanced to a depth of about 18 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor, staining and a maximum PID reading of over 1,500 parts per million [ppm]) from about 6 to 18 feet bgs. ○ WC010A was advanced to a depth of about 15 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor, staining, and a maximum PID reading of over 1,500 ppm) from about 10 to 15 feet bgs. ○ WC010B was advanced to a depth of about 15 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor, staining and a maximum PID reading of over 1,500 ppm) from about 8 to 15 feet bgs. Visible petroleum-like product was encountered at about 9 feet bgs. ○ WC10C was advanced to a depth of about 16 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor and a maximum PID reading of 729.4 ppm) from about 8 to 16 feet bgs. ○ WC10D was advanced to a depth of about 18 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor, staining and a maximum PID reading of over 1,500 ppm) from about 0 to 18 feet bgs. 		
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- **WC04A** was advanced to a depth of about 26 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor, staining and a maximum PID reading of 10.3 ppm) from about 0 to 3 feet bgs.
 - **WC04B** was advanced to a depth of about 26 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor, staining and a maximum PID reading of 308.6 ppm) from about 11 to 26 feet bgs.
 - **WC04C** was advanced to a depth of about 26 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. Impacts were observed (petroleum-like odor, staining and a maximum PID reading of 257 ppm) from about 11 to 26 feet bgs.
 - **WC04D** was advanced to a depth of about 26 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. No evidence of impacts were observed.
 - **WC05B** was advanced to a depth of about 26 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. No evidence of impacts were observed.
 - **WC05C** was advanced to a depth of about 28 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. No evidence of impacts were observed.
- Soil borings were backfilled with clean drill cuttings or clean sand and patched with concrete and/or cold patch asphalt after sampling was completed. Excess soil exhibiting evidence of impacts was containerized in a sealed and labeled, 55-gallon drum and staged in the eastern part of the site pending off-site disposal to an appropriate facility.

Material Tracking

- No material was imported to the site.
- No material was exported from the site.

Sampling

- Langan collected 9 composite soil samples for laboratory analysis of Target Compound List (TCL) and NYSDEC Part 375-list semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, herbicides, NYSDEC Part 375-list and target analyte list (TAL) metals, toxicity characteristic leaching procedure (TCLP) metals, hexavalent chromium, trivalent chromium, total cyanide, and Resource Conservation and Recovery Act (RCRA) characteristics. Select composite soil samples were also analyzed for full TCLP and paint filter.
- Langan collected 11 grab soil samples for laboratory analysis of TCL and NYSDEC Part 375-list volatile organic compounds (VOCs) and New Jersey Department of Environmental Protection (NJDEP)-list Extractable Petroleum Hydrocarbons (EPH).
- Langan collected 31 grab soil samples for laboratory analysis of total and TCLP metals, pending the analytical results of sampling.
- 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 during field activities. Fifteen-minute average concentrations of particulate matter less than 10 microns in diameter (PM10) and VOCs did not exceed action levels for the duration of work activities.

Daily Average Concentrations

Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.037	0.5	0.0
PM-2	0.017	0.3	0.0
PM-3	0.029	0.2	0.0
PM-4	0.009	0.0	0.0
PM-5	0.019	0.0	0.1
PM-6	0.023	0.0	0.0
WZ-1	0.005	0.1	0.0
WZ-2	0.025	0.8	0.0

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.050	1.8	0.0
PM-2	0.022	0.3	* 1.3 @ 11:32am
PM-3	0.040	1.3	0.0
PM-4	0.011	0.1	0.0
PM-5	0.026	0.0	0.3
PM-6	0.031	0.6	0.0
WZ-1	0.009	0.1	0.0
WZ-2	0.037	1.1	0.0

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

- * Mercury vapor concentrations exceeded the action level established in the CAMP from 11:29am to 11:40am at perimeter station PM-2, located along Beekman Street. The exceedances were determined to be erroneous high readings resulting from an equipment malfunction and not a result of ground-intrusive activities associated with drilling activities.
 - Instantaneous mercury vapor concentrations within the two work zones during this time were collected using the handheld Jerome® J505 mercury analyzer and readings ranged from 0.00 µg/mg³ to 0.07 µg/mg³ throughout these time periods.
 - The work zone stations (WZ-1 and WZ-2) remained at 0.00 µg/mg³ throughout this time period.
 - Instantaneous readings on the PM-2 Jerome® J405 unit ranged from 0.5 µg/mg³ to 9.3 µg/mg³. After notification of the elevated readings, work was temporarily halted to investigate the exceedances. The CAMP monitor collected Jerome® J505 readings at the station intake for about 15 minutes and the Jerome® J405 continued to read 0.0 µg/mg³ for the remainder of the operation.
- Langan used a Jerome® J505 mercury analyzer to monitor ambient air conditions in two work zones and throughout the site. Instantaneous mercury vapor concentrations ranged from 0.01 µg/m³ to 0.20 µg/m³.
- Perimeter air monitoring station PM-3 was relocated to the eastern sidewalk of Peck Slip from 8:15am to 8:37am during advancement of soil boring WC10D.
- Perimeter air monitoring station PM-5 was relocated to the northern sidewalk of Pearl Street from 9:48am to 10:47am during advancement of soil boring WC05C.

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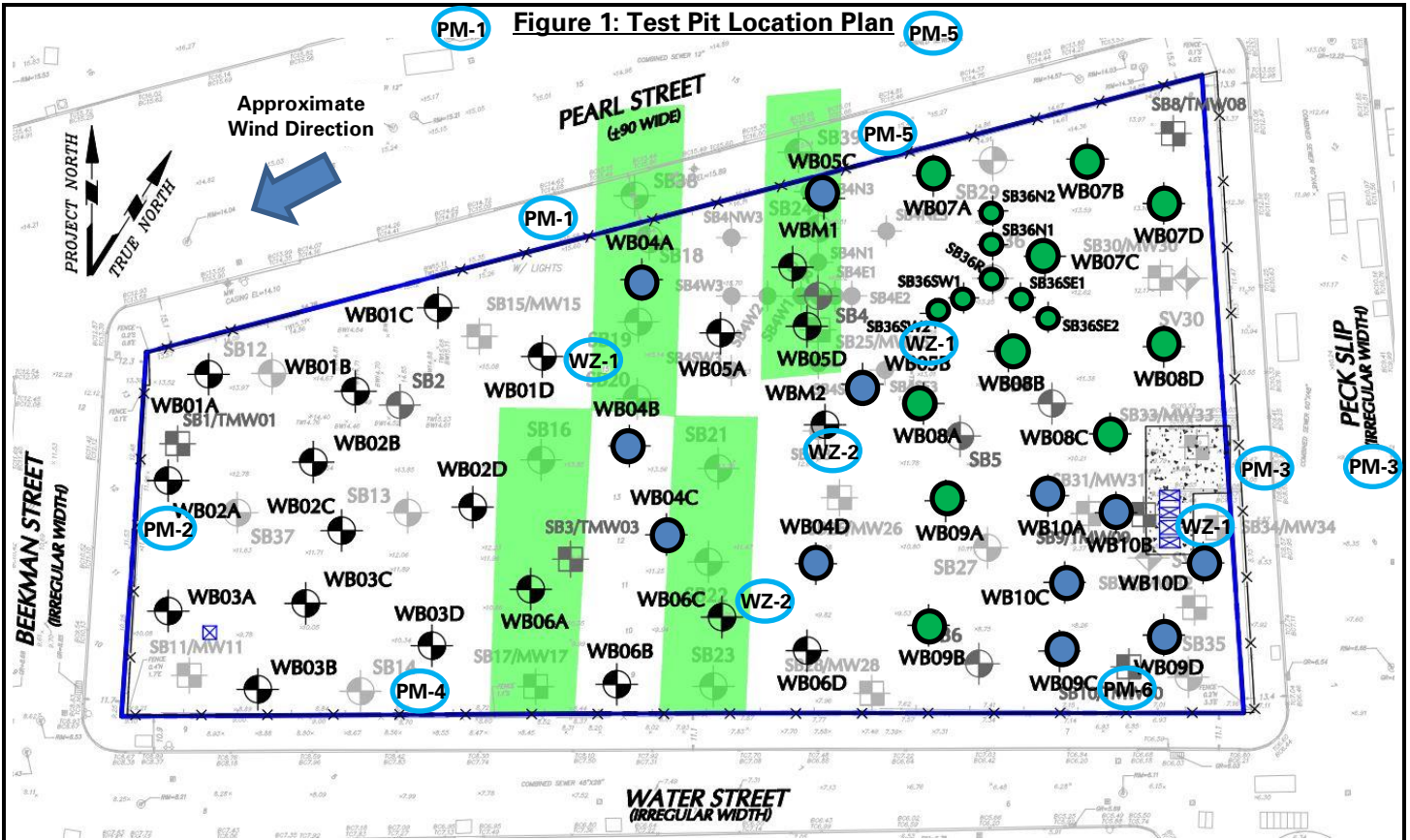
- Perimeter air monitoring station PM-1 was relocated to the northern sidewalk of Pearl Street from 12:42pm to 2:02pm during advancement of soil boring WC04A.
- Prior to discontinuing the CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station.

Anticipated Activities

- Langan and AARCO will continue to advance soil borings and collect soil samples in the north-central and western parts of the site.

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Legend:

- Approximate location of soil borings completed today
- Approximate location of previously completed soil borings
- PM-1 Approximate location of air monitoring station (on-site)
- WZ-1 Approximate locations of work zone air monitoring station

Notes:

- 1) Air monitoring stations 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 AARCO advancing a soil boring in the southeast part of the site (facing south).



Photo 2: View of soil/fill recovered from waste characterization soil boring WC09C.

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