



The City of New York
Manhattan Community Board 1

Tammy Meltzer CHAIRPERSON | **Lucian Reynolds** DISTRICT MANAGER

September 30, 2021

Commissioner Basil Seggos
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-1010

**RE: 250 Water Street Brownfield Cleanup Program [SITE No. C231127 | NYSDEC REGION 2]
Remedial Action Work Plan**

Dear Commissioner Seggos:

In July 2021, Manhattan Community Board 1 (CB1) along with community residents, stakeholders, and elected officials contacted the NYS Department of Environmental Conservation (NYSDEC) urging to extend the comment period for the 250 Water Street Brownfield Cleanup Program (BCP) Remedial Action Work Plan (RAWP) until October 15, 2021. In response, NYSDEC issued an extension of the comment period until September 10, 2021. CB1 followed up with another letter to NYSDEC in August 2021, requesting a public meeting on the RAWP during the CB1 Environmental Protection Committee meeting in September 2021 and reiterated the request to extend the comment period until the originally requested date of October 15, 2021. NYSDEC agreed to attend the Environmental Protection Committee meeting to conduct a public meeting on the RAWP, and agreed to extend the comment period until September 30, 2021.

CB1 thanks NYSDEC, NYS Department of Health (NYSDOH), Langan and all project partners for attending the September CB1 Environmental Protection Committee meeting to present critical information on the RAWP, and to hear questions and concerns from the community. The meeting was one of CB1's most highly attended remote meetings and highlighted the immense time and energy invested by community members into understanding the proposed RAWP and ensuring safety during the process. During that meeting, NYSDEC heard a ubiquitous plea to fulfill the extension until October 15, 2021 so that the community would have sufficient time to understand these complex plans and submit thoughtful and thorough comment.

CB1 is greatly disappointed that the extension request has not been granted. Further, CB1 staff followed up with NYSDEC after the 250 Water Street RAWP public meeting to request information on: 1) status of the request to extend the comment period deadline; 2) status of the request to form a 250 Water Street BCP task force; 3) status of the request to schedule a tour of the 250 Water Street site with agency staff; 4) a list of other BCP sites in NYC with similar conditions to 250 Water Street; 5) a list of ingredients and toxins (if any) in the foam used as part of the remediation process; and 6) more information/clarity on why tenting can or

cannot be used at the site. CB1 is not only deeply disappointed by the failure to grant the October 15, 2021 extension, but we are further disappointed by the fact that NYSDEC did not respond to answer any of these questions in time for the submission of this comment.

It is not too late for NYSDEC to correct course in order to maintain the trust of the community as part of this BCP process, and we urge you to address the following items as soon as possible as a means of restoring good faith in this process:

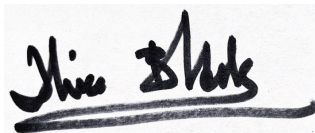
- 1) Assurance that Lawra J. Dodge, P.G., LSRP, President of Excel Environmental Resources, Inc. and Independent Community Monitor for this project, as well as expert consultants working with the Blue School and the Seaport Coalition, receive a copy of the Remedial Design Investigation (RDI) work plan and have an opportunity to submit comment before it is finalized.
- 2) The community needs greater clarity and more information on test pits at “hot spot” locations. As we understand, they were not conducted as part of the investigation phase so that they would not be done while children are in school. However, they were also not done over the summer during the school break and are now planned to be done as part of the RDI, potentially while school is back in session. The community deserves an explanation as to how these events unfolded, and plans with specific detail on how these test pits will be conducted.
- 3) Assurance that NYSDEC, NYSDOH and Langan will take serious consideration for doing the most intrusive remedial work while school is not in session. Or, at the very least, avoiding any intrusive work while students are undergoing state testing.
- 4) Establish a stakeholder task force including, but not limited to, NYSDEC, NYSDOH, Langan, HHC, CB1, Lawra Dodge and other expert community consultants, local elected officials, community leaders/organizations, NYS Department of Transportation, NYC Department of Education, and school leadership, that meets regularly to review and discuss upcoming remedial actions and plans.

Attached to this letter are comments on the RAWP drafted by Lawra J. Dodge, P.G., LSRP, President of Excel Environmental Resources, Inc. and Independent Community Monitor for this project, which we submit along with this cover letter as comment on the 250 Water Street BCP RAWP for consideration by the agencies overseeing this project. We urge you to carefully consider these comments and recommendations, and we are eager to continue working together towards ensuring a process that is both safe and transparent.

Sincerely,



Tammy Meltzer, Chairperson



Alice Blank, Vice Chairperson & Chair of Environmental Protection Committee

CC: Rafi Alam, NYSDEC
Heidi Dudek, NYSDEC
Scarlett Mclaughlin, NYSDOH
Assemblymember Yuh-Line Niou, Assembly District 65
Senator Brian Kavanagh, 26th Senate District
Manhattan Borough President Gale Brewer
NYC Councilmember Margaret Chin
Children First
Seaport Coalition
Lawra J. Dodge, Excel Environmental Resources, Inc.
Tom Fusillo, Ramboll
Saul Scherl, Howard Hughes Corporation



*Solving Environmental Problems
& Creating Redevelopment Opportunities*

September 30, 2021

Ms. Heidi-Marie Dudek, PE
Chief, Division of Environmental Remediation
Remedial Bureau B, Section D
Mr. Rafi Alam, Project Manager
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7017

By EMAIL ONLY

**RE: Comments on the Draft Remedial Action Work Plan
For 250 Water Street, New York, New York
Prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture, and
Geology, DPC
NYSDEC BCP Site No. C231127**

Dear Ms. Dudek and Mr. Alam:

On behalf of Community Board (CB)-1, Excel Environmental Resources, Inc. (Excel) has reviewed the Draft Remedial Action Work Plan (RAWP) dated June 23, 2021 prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, DPC (Langan) for the 250 Water Street Site (hereafter referred to as "Site" or "subject property"). The Draft RAWP was prepared on behalf of 250 Seaport District, LLC c/o The Howard Hughes Corporation (HHC). Prior to our review of the Draft RAWP, we reviewed the Final Remedial Investigation (RI) Report also prepared by Langan on behalf of HHC and reference the RI Report in our comments below, where applicable.

As you are aware, I have been the Independent Community Monitor (ICM) for the local community in the vicinity of the Site since January 2020. On behalf of CB-1, I participated in the September 21st, 2021 Public Meeting hosted by the CB-1 Environmental Protection Committee (EPC) where the New York State Department of Environmental Conservation (NYSDEC) and NYS Department of Health (NYSDOH) representatives and Ms. Mimi Raygorodetsky of Langan gave a presentation on the Draft RAWP for the Site. During the Public Meeting, I made several comments which I have memorialized in this letter, the first of which was a plea for additional time beyond the September 30, 2021 close of the Public Comment period, which was only seven business days after the Public Meeting.



As a result of the dialog during the Public Meeting, there were multiple concerns, comments and questions posed to me as the ICM and I have been working with CB-1 and the various community members to sort through them, but many have multiple components and are complex in nature. Despite the community's repeated and highly substantiated requests for additional time beyond September 30, 2021, as of the time this letter was prepared, the NYSDEC has not granted an additional extension to the Public Comment Period. I have therefore prepared this comment letter on behalf of CB-1 with less time to address and incorporate individual community member comments and less time to reference specific sections of the Draft RAWP to help substantiate my comments.

I therefore suggest that, after all comments have been received, that NYSDEC and DOH arrange a virtual meeting or conference call with the community's environmental professionals, including myself, Tom Fusillo on behalf of The Blue School and others, to further elaborate on the comments outlined herein and those made by community members, other professionals, and other stakeholders.

The balance of this letter is structured as follows: A. Summary of RI Findings (for Background and Context for the Community), B. Comments on the Site Setting, C. Comments on the Proposed Remedial Action Schedule, D. Specific Comments on the Draft RAWP Scope, Methods and Procedures, and E. Closing Comments.

Note that I have attached documents from the Final RI Report and/or Draft RAWP to help underscore the basis for some of the concerns and comments I have outlined herein. See Attachments A and B.

A. Summary of RI Findings (for Background and Context for the Community):

This section is provided for reference and for use by community members and stakeholders, many of whom have raised various concerns regarding contamination at the Site but may not have been able to sort through and decipher the significant amount of technical data in the RI Report and/or Draft RAWP. As you know, there is a very long history of industrial operations on multiple lots across the Site and the findings of the RI conducted by Langan on behalf of HHC, as summarized in the RI Report dated June 23, 2021, documents the resultant soil, soil vapor, and groundwater contamination at the Site:

1. **Site-wide Historic Fill** containing semi-volatile organics (SVOCs), heavy metals including lead, arsenic, and zinc among others, pesticides, and polychlorinated biphenyls (PCBs) at concentrations above the Title 6 of the New York Codes, Rules and Regulations (6 NYCRR) Part 375 Unrestricted Use (UU), Protection of Groundwater (PGW), and/or Restricted Use Restricted-Residential (RURR) Soil Cleanup Objectives (SCO) and related impacts to groundwater with SVOCs and total and dissolved phase metals above Standards and Guidance Values (SGVs) for groundwater.
2. **Mercury impacts to soil above the 0.18mg/kg UU and the 0.81 mg/kg RURR SCOs** related to historic discharges associated with the former thermometer factory and associated workshops with the highest mercury concentrations in soil (up to 730 mg/kg) identified within the footprint of the former thermometer factory located at 302 Pearl Street and lower but still elevated concentrations reported



3. in the vicinity of the three historical thermometer workshops and concentrations above the SCO's scattered across the Site. The mercury soil concentration ranges taken from Page 47 of 71 of the RIR are as follows:

Area	Average Hg Conc. (Historic Fill Samples Only)	Maximum Hg Conc.
302 Pearl Street (within and adjacent to)	32.6 mg/kg	730 mg/kg
Three Historical Thermometer Workshops	4.1 mg/kg	13 mg/kg
All Other Site-Wide Samples	1.4 mg/kg	11 mg/kg

From Page 35 of 71 of the RIR: "Mercury was detected in 135 soil samples (out of 237) soil samples collected during the 2020 remedial investigation from surface grade to depths of up to 22 feet below ground surface at concentrations above the UU and/or RURR SCOs". Therefore approximately 57% of all the soil samples collected for mercury analysis contained mercury above one or both of its SCOs. The RIR and Draft RAWP states that the "source of mercury contamination is likely from incidental releases of mercury during historical thermometer factory/workshop operations or from the mercury-impacted building material used as backfill within the historic fill layer". The RI indicates therefore indicates that mercury-impacted soil could be encountered anywhere across the Site during excavation for remediation and/or redevelopment.

In addition, the Geophysical Survey conducted as part of the RI identified possible former thermometer factory foundation walls in the vicinity of the mercury "hot spot" located at 302 Pearl Street and in the vicinity of two of the three thermometer workshops---since the RI concludes that mercury reported in soil could be related to mercury-impacted building materials, when these former foundation walls are unearthed, higher levels of mercury could be encountered than what has already been documented at the Site----these RI findings underscore the heightened level of concern expressed in this letter and in comments made by community members during the Sept. 23rd Public Meeting and in emails and comment letters recently submitted to the agencies.

4. **Soil vapor contamination with 28 VOCs, including petroleum-related VOCs, chlorinated VOCs** with concentrations ranging from 38 micrograms per cubic meter (ug/m³) to 39,300 ug/m³ with the petroleum-related VOCs attributed in the RIR to the UST discharges and timber pile/cribbing (see Item A.1 e below) and the highest concentrations near the UST area along the eastern property boundary adjacent to Peck Slip, across the street from the Peck Slip School and in the vicinity of The Blue School.
5. **Mercury vapor** was reported in two soil vapor samples collected as part of the RI in the sidewalk adjacent to 302 Pearl Street, the former thermometer factory, at concentrations of 0.222 ug/m³ and 0.271 ug/m³ and, although mercury was not reported in vapor at the onsite soil vapor sampling locations, despite comments made by Langan during the September 21st, 2021 Public Meeting that mercury vapor was not detected above action levels during the RI, mercury concentrations were measured above the 1.0 ug/m³ action level established by the Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) used during the RI during the Jerome Mercury Vapor Analyzer



6. screening of air quality in void spaces and in soil vapor probes installed under the asphalt as well as during screening of soil samples during the soil boring investigation.

As shown in the Site Observation Reports provided as Attachment A, a mercury vapor concentration as high as **2.32 ug/m³** was reported in Void 5 on July 8, 2020, and a mercury reading of **6.63 ug/m³** was reported during screening of a soil sample collected from the Site on July 27th, 2020. In addition, a 15-minute average mercury concentration of **0.9 ug/m³** was reported at CAMP station PM5 on August 18, 2020---there are other CAMP station readings of **0.8 ug/m³** and lower but above background readings all throughout the RI field activities.

Although the latter reading did not exceed the 1.0 ug/m³ mercury action level, it came right up to the action level even though the field activity was the drilling of small diameter soil borings through the asphalt---the field activity did not involve removal of the asphalt or excavation of mercury impacted soil as is proposed as part of the Draft RAWP. Mercury vapor readings are highlighted in yellow on the Reports provided in Attachment A to call out the data more easily. These Reports are provided in the RI Report and on the NYSDEC website but tend to get lost in the discussions given how large and complex the BCP project documents are.

The importance and relevance of these mercury readings is that they document that mercury vapor is present in the subsurface at the Site and was measured above background even though the RI involved drilling small diameter soil borings and vapor points. The proposed remedial action will involve removing all the asphalt pavement and excavation of highly impacted mercury contaminated soil across the entire Site from curb to curb----the debris identified at the Site during the Geophysical Survey and encountered during RI drilling activities will also require excavation and the RI Report states that debris is a likely source of mercury contamination and therefore could also be mercury contaminated. The fact that mercury was detected at levels approaching the 1.0 ug/m³ mercury action level when the RI field activities involved drilling small diameter holes through the existing asphalt underscores the concerns raised by the community that removing the asphalt and excavating mercury-impacted soil and debris located across the entire Site could result in much higher mercury vapor concentrations in the ambient air.

7. **Petroleum impacts to soil and groundwater** in the southeastern and northeastern sections of the Site adjacent to the Peck Slip, Pearl Street, and Water Street Site boundaries where petroleum odors, soil staining, photoionization detector (PID) readings [used to measure volatile organic compound (VOC) levels in air] above background levels, and petroleum-related VOCs and SVOCs were reported above the UU, PGW and/or RURR SCOs in soil attributed to petroleum discharges from four underground storage tanks (USTs) and two additional USTs, respectively. Noticeable petroleum odors and VOCs levels above background resulted from drilling small-diameter soil borings through the asphalt---stronger odors and higher VOC levels can be expected when the asphalt is removed, and impacted soil is excavated in these areas.
8. **Treated timber piles or cribbing that exhibit "creosote-like" impacts** as evidenced by odor, soil staining, and PID readings above background levels. Again, noticeable odors and VOC levels above background resulted from drilling of small-diameter soil borings through the asphalt---stronger odors

and higher levels can be expected when the asphalt is removed, and impacted soil is excavated in these areas.

9. **PCB-impacted soil at concentrations above the UU, PGW, and/or RURR SCOs** related to historical onsite uses that included an oil company and garage with two USTs in the northeastern part of the Site near the corner of Peck Slip and Pearl Street and an oil company/factory near the site boundary along Beekman Street. Impacts extend to depths of up to 15 feet below grade and extend to the Water Street site boundary and/or the Beekman Street site boundary depending on the boring location.
10. **Per and polyfluoroalkyl substances (PFAS)-impacted soil** detected at various depths in soil throughout the Site at concentrations above the UU guidance values but below the RURR guidance values and PFAS-impacted groundwater in samples collected across the Site. Although the RI data indicates that PFAS, as well as chlorinated VOC concentrations in groundwater documented at the Site, likely reflect upgradient, off-site source (s) migrating onto the subject property, PFAS-contaminated groundwater occurs at the Site and will require management during dewatering related to the remediation and redevelopment.

B. Comments on the Site Setting:

1. On Page 2 of my January 16, 2020 comment letter on the Draft RIWP, I outlined the fact that the Site is in extremely close proximity to a multitude of sensitive receptors located immediately across the street from the Site on all four sides but it is worth reiterating this very important point---the Peck Slip Elementary School and The Blue School are located immediately opposite the eastern and southern boundaries of the Site where strong petroleum and creosote odors were found during the RI, where elevated petroleum-related VOC concentrations in air were documented, and in close proximity to where the RI documented the highest mercury concentrations in soil.

Since the RI was conducted, the COVID-19 pandemic occurred and, in addition to masking and other requirements, additional classroom ventilation requirements were put in place for the adjacent schools, including the use of "natural ventilation" (i.e., open windows) and in-window air conditioners raising the level of concern regarding potential indoor air quality impacts to the school children and teachers associated with intrusive remediation activities at the Site even higher. COVID-19 related concerns have exacerbated what was already a heightened level of concern with respect to the potential adverse impacts to school children at Peck Slip and The Blue School if the Remedial Action is conducted while school is in session therefore changes to the sequence of events and schedule are recommended as outlined in Section C of this letter.

2. In addition to the adjacent schools, there are thousands of people living in the adjacent residential high-rise buildings, including young children, senior citizens, pregnant women, and individuals with pre-existing health conditions, including respiratory impairment---many of whom suffered because of 911 and post-911 air quality impacts and who have more recently suffered COVID-19 related ailments.



3. We recognize that the NYSDEC and NYSDOH acknowledged this unique site setting when the air quality action levels for the RI activities were established but it bears repeating that, not only are these residents living in very close proximity to the Site, there are air handling units and associated air intakes, including at ground level, in the vicinity of Southbridge Towers and in-window air conditioners in the South Bridge Towers and other residential buildings around the Site which creates a potential route for inhalation exposure to any adverse air quality issues related to intrusive activities at the Site. This includes odors, dust and particulates, VOC vapors, and mercury vapors, all of which must be effectively monitored but even more importantly, effectively kept on the Site.
4. What was not mentioned in my January 16, 2020 comment letter was the extraordinary stress and trauma caused by 911 and post-911 health impacts suffered by many in the community immediately surrounding the 250 Water Street site which has now been compounded by the stress and trauma resulting from the protracted COVID-19 pandemic and its impact on the physical and mental health of the community members, young and old alike. The fact pattern associated with this Site and the ongoing COVID-19 pandemic is truly unique and the potential risks to the health and well-being of this community are significant----the modifications to the proposed Draft RAWP, the sequence of events, and the Remedial Action Schedule requested herein must be made.

C. Comments on the Proposed Sequence of Events and Remedial Action Schedule

1. The Remediation Schedule for implementation of the RAWP is provided as Appendix I of the Draft RAWP---in it, the Remedial Design Investigation (RDI) is identified as Item 5 and is scheduled to begin after the NYSDEC approves the Final RAWP and issues the Decision Document. Given the substantiated and heightened concerns regarding the potential for adverse air quality issues associated with excavation of the documented mercury impacted soil at the Site, the following changes to the proposed sequence of events and Remedial Action Schedule are requested:
 - a. The Workplan for the RDI briefly discussed in Section 3.1.1 of the Draft RAWP has yet to be prepared or submitted to the NYSDEC/DOH by Langan/HHC which is unacceptable. The RDI work scope could have, and should have, been incorporated into the Draft RAWP so that the technical scope and approach to the supplemental investigation could have been reviewed and commented on by the public, including the community's environmental professionals.
 - b. For example, the text of the Draft RAWP states that the RDI is anticipated to consist of waste characterization sampling to obtain waste stream approval in advance of performing the remedial action which we agree with so that excavated soil can be directly loaded into trucks and transported offsite instead of stockpiled onsite but there is no work scope provided and sampling for waste characterization is the only stated objective of the RDI, there is no mention of the Test Pit investigation which was to be conducted as part of the RDI since it was not conducted during the RI because there was insufficient time before children returned to school at Peck Slip and The Blue School.



- c. As previously stated, the performance of Test Pits was recommended for inclusion in the RI work scope so that air quality could be evaluated when the intrusive activities at the Site were expanded to include removal of the asphalt pavement and excavation of the documented mercury-impacted soil. This would enable a more accurate evaluation of the potential for mercury and VOC vapor generation during the full-scale soil excavation proposed as part of the Draft RAWP and it is an essential part of the Remedial Action design.
- d. Based on the findings of the RI outlined in Section A of this letter, the risk posed by performance of the Test Pits in the mercury hot spot areas is significant and there has been a significant erosion of trust within the community with respect to how the evaluation of the potential for mercury and VOC air quality impacts will be evaluated before the RAWP work scope, means and methods are finalized. We request that NYSDEC require Langan/HHC to prepare the RDI Work Plan, inclusive of the waste characterization sampling and Test Pit investigation work scope, methods, and procedures, for submission to the agencies and to the public for review and comment in advance of approving the RAWP, not as a supplement to an approved RAWP as is proposed. In addition, serious consideration should be given to performance of the Test Pit investigation in the mercury hot-spot areas and at other locations with the potential for mercury contamination, including where remnant foundations of the former thermometer warehouses are located, using a negative pressure enclosure to ensure that there is no mercury vapor release to the community during the investigation.
- e. As discussed during the Public Meeting, the Remedial Action Schedule provided in the Draft RAWP allocates seven months for implementation and reporting of the findings of the RDI. There is no breakdown of the actual intrusive field activities but, as was done with the RI field activities, we request that NYSDEC direct Langan/HHC to devise a schedule for the RDI where intrusive activities are conducted when school is not in session at Peck Slip or The Blue School. For example, in reviewing both school calendars for the 2021-2022 school year, both schools have overlapping Winter and Spring breaks during which school will not be in session and intrusive RDI activities could be conducted.
- f. As also discussed during the Public Meeting, a single construction timeline for the implementation of the Remedial Action, once the RAWP is finalized, and the subsurface components of the site redevelopment, once all redevelopment approvals are in hand, should be devised and reinforced by NYSDEC and NYSDOH. This is the most economical approach for HHC and the least disruptive to the community with respect to all the concerns that have been expressed by the various community members, community groups, community representatives and environmental professionals.
- g. For example, if the RDI is conducted during the Winter and/or Spring breaks in the school schedules, the components of the Remedial Action that pose the highest environmental risk, including excavation and disposal of the mercury hot spot soils, excavation of the USTs and associated petroleum-impacted soil, and excavation of the soil with moderate but still elevated mercury concentrations, can be conducted in the summer months when school is



not in session. We request that NYSDEC sit down with Langan/HHC to rework the Remedial Action Schedule to accomplish this goal---we are confident it can be done.

D. Specific Comments on the Draft RAWP Scope, Methods and Procedures

Review of the Draft RAWP indicates that it is lacking in detail in some key aspects of the performance of the field activities and in the scope and technical approach to the air quality monitoring, including the Community Air Monitoring Plan (CAMP). Specific comments are as follows:

1. There is no mention of a dedicated air monitoring technician in the Draft RAWP as was incorporated into the CAMP that was used during implementation of the RI field activities—the dedicated air quality technician provided real-time air monitoring downwind of the active work areas using a PID and Jerome J505 mercury vapor analyzer as well as a dust/particulate meter as an “early warning system” between the work zone and the perimeter of the Site. The Draft RAWP should be revised to add the dedicated air monitoring technician into the CAMP for the full duration of the RDI implementation and the Remedial Action implementation.
2. The Draft RAWP currently states that the CAMP will include mercury air monitoring during excavation of the soil in the mercury “hot spot”, but it is unclear as to whether the mercury monitoring will continue throughout the duration of the Remedial Action. The Draft RAWP should be revised to clearly state that the perimeter CAMP and mercury monitoring will be conducted throughout the duration of the Remedial Action and redevelopment construction until such time that all subsurface, intrusive activities are completed.
3. The Draft RAWP does not specifically state how the perimeter CAMP units will be managed during the implementation of the Remedial Action and as outlined during the presentation by Langan during the Public Meeting, a construction fence will be erected around the perimeter of the Site before the start of work. As you know, the CAMP units were moved offsite in the downwind direction when intrusive activities were within 20 feet of the property boundary during performance of the RI but the Draft RAWP does not specify where the CAMP units will be placed when soil excavation is conducted near the property boundaries. Where will the CAMP units be placed when soil excavation is being conducted in the areas immediately adjacent to the boundaries of the Site? Given the site setting, the Draft RAWP should be revised to clearly address this.
4. The Draft RAWP states that waste characterization sampling “is anticipated” to be part of the RDI Work Plan but there is a significant discussion on stockpiling of excavated soil at the site and handling and management of excavated soil which suggests that the intention is for soil stockpiling to take place. Despite best intentions and best efforts, maintaining covers or tarps on stockpiled soil is difficult at best and the windy conditions in the vicinity of the Site will make it even more challenging. Given the small size of the Site and the long, narrow orientation, we recommend that the Draft RAWP be revised to propose direct excavation and live loading of excavated soil, especially all mercury and petroleum-impacted soil with advance waste stream



approval and no stockpiling whatsoever of this material given the community's concerns regarding dust and particulate generation and contaminated stormwater runoff associated with contaminated soil stockpiling.

5. With respect to the excavation and offloading of mercury and petroleum-impacted soil, as well as Historic Fill, depending on the location, excavation will extend below the water table. Even though groundwater dewatering is proposed, soils below the water table will still be saturated and will likely generate run-off but there is no detailed discussion regarding how this run-off will be managed. The Draft RAWP should be revised to discuss the means, methods, and best management practices for ensuring that water associated with excavation of wet soils will be kept on the Site and will not run off onto adjacent sidewalks or streets.
6. During the Public Meeting, significant concerns were raised regarding the noise that will be associated with implementation of the Remedial Action and redevelopment construction activities given the use of heavy equipment, loading of trucks with excavated soil and debris, etc., and the Draft RAWP needs to be revised to specifically address noise mitigation measures that will be utilized during performance of the work. A detailed discussion of best management procedures and, if/as necessary, engineering controls should be provided.
7. During the Public Meeting, I raised concern regarding the lack of a meaningful Truck Route--a copy of the Truck Route Map included as Figure 13 in the Draft RAWP is enclosed as Attachment B for reference. As shown, the Truck Route Map is generalized and does not show how trucks will enter or exit the Site or where trucks will be staged when soil is being offloaded. Will trucks traverse the roadways immediately surrounding the Site, specifically Peck Slip, Water Street or Beekman and will trucks be staged or idled in the vicinity of the Site? This is a significant concern to the community and there is no information provided--the text in Section 4.3.3 "Stabilized Construction Entrance(s)" is very generic with no mention of where the entrance(s) will be. The Draft RAWP should be revised to clearly discuss the management of trucks in an out of the Site, the construction entrances(s) should be identified, and the Truck Route Map revised to clearly show proposed routes in the area immediately surrounding the Site.
8. The Mercury Vapor Control Plan outlined in Section 5.4.12 of the Draft RAWP states that one of the best management practices proposed for management of mercury vapors includes the use of MERCON along with the use of tarps/plastic sheeting over soil stockpiles, and tarps/plastic sheeting over hotspot excavation areas when excavation is not active. The community has expressed concern regarding the use of MERCON at this Site given that no information on the composition or safety is provided and the proximity to so many sensitive receptors. Information regarding the composition and appropriate use of MERCON at this Site should be provided for review by the community and their environmental professionals.
9. Similarly, Section 5.4.12 states that "chemical odorants or sprays" may be used to eliminate "odor nuisances" if other best management practices are not effective, but no information is provided



regarding the composition or safety of such chemical odorants or sprays and this information should also be provided for review by the community and their environmental professionals.

10. Given the very close proximity to buildings and schools around all four sides of the Site and the proposal to excavate soil to depths of up to 16 to 18 feet below grade, will a pre-remediation baseline evaluation of the buildings surrounding the Site be conducted, especially considering the mention of "sheeting and shoring" in Section 4.3.5 of the Draft RAWP. The text of this section is extremely generic and vague as to the proposed means and methods for the "management of structural stability of on-site and off-site structures" and additional elaboration and detail is requested.
11. Finally, during the September 21st, 2021 Public Meeting, the NYSDEC indicated that the agency will conduct additional investigation of the mercury vapor levels reported at the soil vapor points, in the sidewalk adjacent to Pearl Street since it is not the responsibility of the Volunteer under the BCP Program----the community requests that NYSDEC provide an update regarding the scope and timing of the supplemental investigation as soon as possible.

E. Closing Comments


As previously stated, despite the community's repeated and highly substantiated requests for additional time beyond September 30, 2021, as of the time this letter was prepared, the NYSDEC has not granted an additional extension to the Public Comment Period and I have prepared this comment letter on behalf of CB-1 with less time to address and incorporate individual community member comments and less time to reference specific sections of the Draft RAWP to help substantiate my comments.

I therefore suggest that, after all comments have been received, that NYSDEC and DOH arrange a virtual meeting or conference call with the community's environmental professionals, including myself, Tom Fusillo on behalf of The Blue School and others as the community members deem appropriate, to further elaborate on the comments outlined herein and those made by community members, other professionals, and other stakeholders. In so doing, we can work collaboratively to achieve the safest and most protective and effective outcome for the community and HHC.

On behalf of CB-1, we respectfully request the opportunity to supplement this letter should additional comments be developed by the community members after issuance of this letter.

Thank you for the opportunity to submit this comment letter and for your consideration.

Sincerely,
EXCEL ENVIRONMENTAL RESOURCES, INC.


Laura J. Dodge, P.G., LSRP
President

Attachments A and B

Cc: Tammy Meltzer, CB-1
Lucien Reynolds, CB-1
Alice Blank, CB-1
Diana Switaj, CB-1



Attachment A

SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Tuesday, June 15, 2021 Clear, 70-80 °F	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Wind: WSW @ 0.8 mph (9:16am) to SSW @ 6.2 mph (11:45am)	
LOCATION: New York, NY	TIME: 8:30 am – 3:00 pm		
BCP SITE ID: C231127	CONTRACTOR: La Life Paving, Inc. (La Life Paving)		
EQUIPMENT: Bobcat S770 Compactor Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX		PRESENT AT SITE: Tomas Monti, Adrian Heath – Langan Antonio Agro – La Life Paving	
LANGAN REP. : Tomas Monti, Adrian Heath			
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: <p>Langan continued documenting the parking lot repairs in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved June 8, 2021 Parking Lot Repair Work Plan for NYSDEC Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Block 98, Lot 1).</p> <p>Site Activities</p> <ul style="list-style-type: none"> La Life Paving cut edges in the existing asphalt around the perimeter of the weathered areas in the eastern part of the site. La Life Paving cleaned and removed loose asphalt and placed asphalt cement (AC-5) at the weathered areas in the eastern part of the site. La Life Paving placed and compacted a 1.5-inch layer of asphalt in the weathered areas in the eastern part of the site. <p>Material Tracking</p> <ul style="list-style-type: none"> No material was imported to the site. No material was exported from the site. <p>Sampling</p> <ul style="list-style-type: none"> No samples were collected. 			
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Tomas Monti		LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during parking lot repair activities. Fifteen-minute average concentrations of particulate matter smaller than 10 microns in diameter (PM10), mercury vapor, and volatile organic compounds (VOC) 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/m³) for PM10, 0.5 parts per million (ppm) for VOCs, and 0.0 micrograms per cubic meter (µg/m³) for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.013	0.0	0.0
PM-2	0.019	0.0	0.0
PM-3	0.018	0.0	0.0
PM-4	0.035	0.1	0.0
PM-5	0.027	0.0	0.0
PM-6	0.013	0.0	0.0
WZ-1	0.042	0.4	0.0

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.035	0.0	0.0
PM-2	0.067	0.1	0.0
PM-3	0.044	0.0	0.0
PM-4	0.110	0.2	0.0
PM-5	0.068	0.0	0.0
PM-6	0.027	0.0	0.8
WZ-1	0.100	1.9	0.0

Anticipated Activities

- La Life Paving will pave the depressed areas with asphalt.

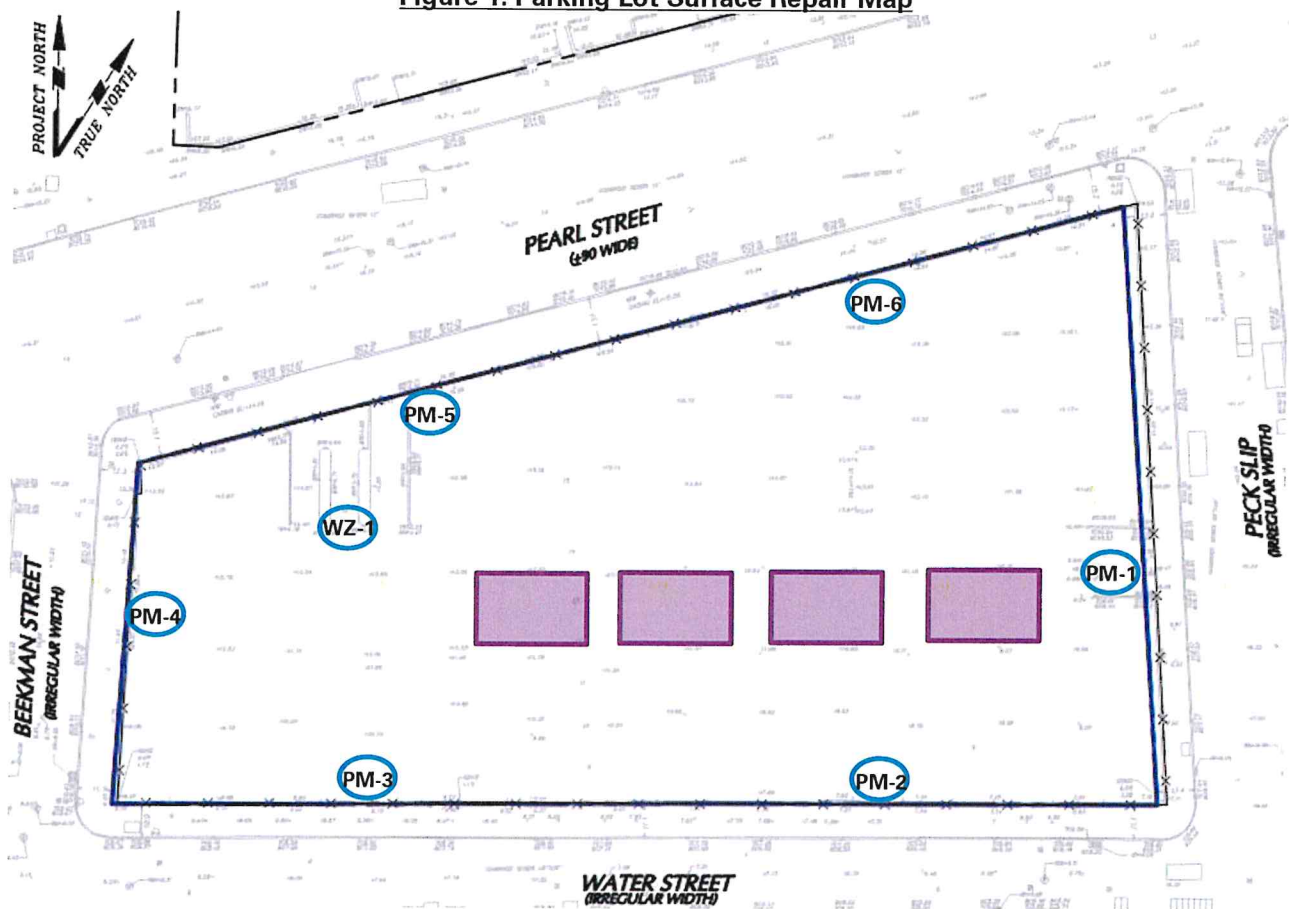
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Tomas Monti

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SITE OBSERVATION REPORT

Figure 1: Parking Lot Surface Repair Map



Legend:

- 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
- Approximate location of parking lot surface repair

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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By: Tomas Monti

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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of cut edges in the existing asphalt and placement of AC-5 (facing project southwest)

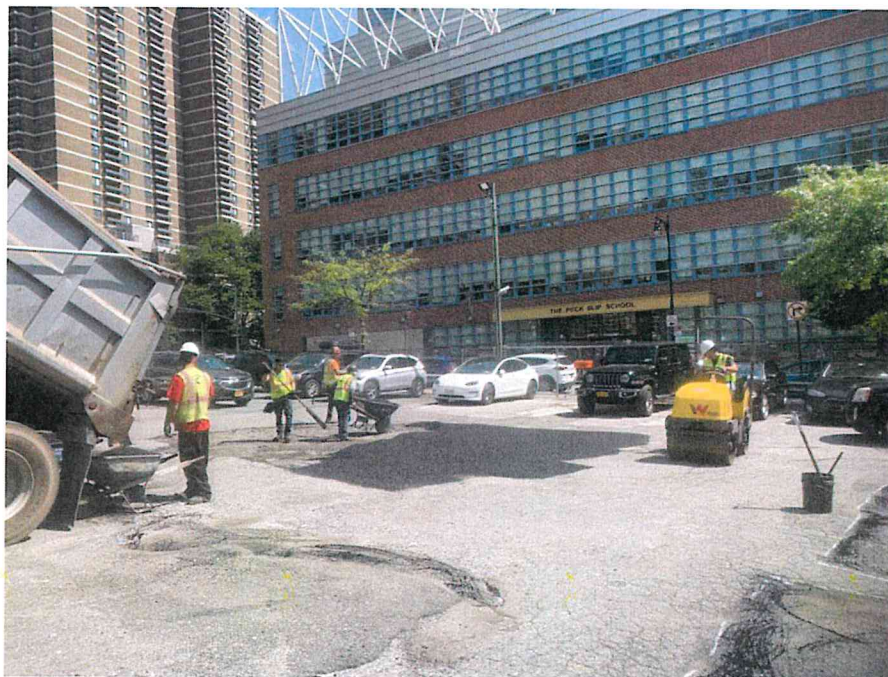


Photo 2: View of backfilling and compaction of a 1.5-inch asphalt layer (facing project northeast)

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Tomas Monti

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DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

Manhattan, New York

06/15/21

Project number: 170381202

Page 1 of 2

Submitted By:

Rev. No. 0

Dust Background & Action Level ($\mu\text{g}/\text{m}^3$) 25 125

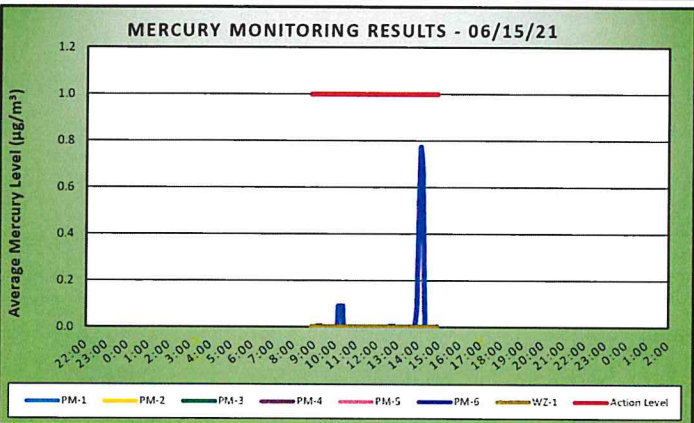
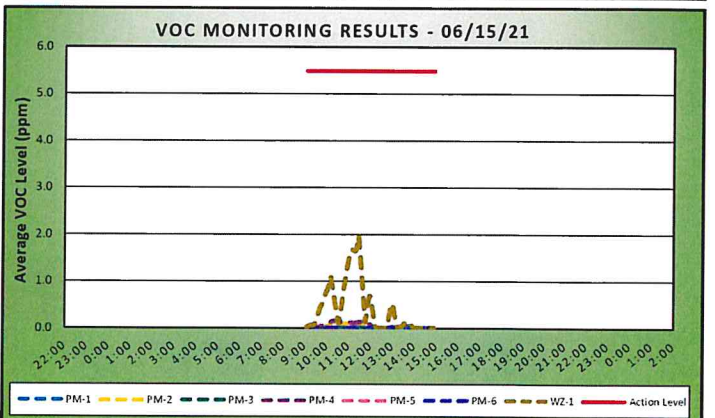
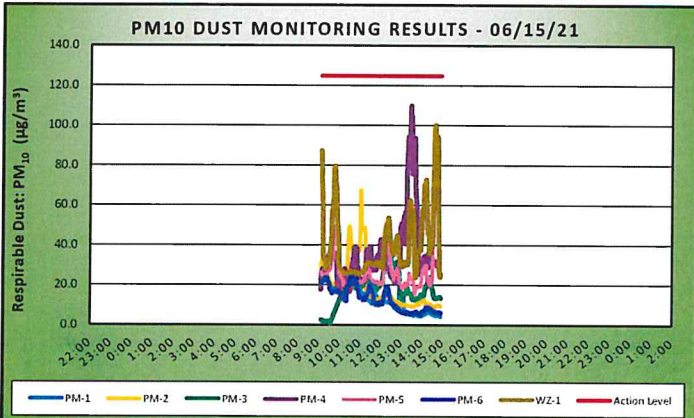
VOC Background & Action Level (ppm) 0.5 5.5

Hg Background & Action Level ($\mu\text{g}/\text{m}^3$) 0.0 1.0

Weather Data Range for Work Day		Wind Direction	NNE, NE	Relative Humidity (%)	36.9 - 70.2	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported downwind concentrations.
Temp (°F)	70.3 - 80.9	Wind Speed (MPH)	0.8 - 6.2	Barometer (inHg)	29.79 - 29.83			

Station Location Work Area	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1	13.4	35.5	10:47	0.0	0.0	9:05
PM-2	18.7	67.5	11:02	0.0	0.1	10:30
PM-3	17.7	43.8	12:22	0.0	0.0	11:16
PM-4	34.8	109.9	13:26	0.1	0.2	10:19
PM-5	26.6	68.4	14:36	0.0	0.0	9:27
PM-6	12.9	27.3	10:43	0.0	0.0	9:04
WZ-1	42.3	100.3	14:37	0.4	1.9	11:26

Station Location Work Area	Daily Avg. Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max 15 Minute Avg Mercury Reading
PM-1	0.0	0.0	8:50
PM-2	0.0	0.0	8:50
PM-3	0.0	0.0	8:50
PM-4	0.0	0.0	12:01
PM-5	0.0	0.0	8:50
PM-6	0.0	0.8	14:04
WZ-1	0.0	0.0	12:45



Air Monitoring Notes:

Sampling Notes:

Weather Notes:



SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Wednesday, September 2, 2020
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Cloudy/Rainy, 74-84 °F Wind: E @ 3 to 13 mph
LOCATION: New York, NY		TIME: 6:30 am – 16:00 pm
BCP SITE ID: C231127		

CONTRACTOR: AARCO Environmental Services Corp. (AARCO)	LANGAN REP. : Tyler Zorn Lexi Haley
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EQUIPMENT: Jerome J505 MiniRAE 3000 Peristaltic Pump Horiba U52-2 Water Quality Meter Solinst Interface Probe	PRESENT AT SITE: Tyler Zorn, Lexi Haley – Langan	RI Day 20
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OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan continued implementing Phase 5 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).

Site Activities

- Langan used a peristaltic pump to purge and conduct low-flow groundwater sampling of previously installed monitoring wells. Water quality readings were recorded using a Horiba U52-2 Water Quality Meter prior to sample collection.
 - MW26: No petroleum-like odor was observed emanating from the monitoring well. Photoionization detector (PID) headspace readings were observed up to 12.7 parts per million (ppm). No Jerome J505 mercury vapor headspace readings above background were observed. After sampling, groundwater was gauged at about 17 feet below grade surface (bgs).
 - MW30: Petroleum-like odors were observed emanating from the monitoring well. No PID or Jerome J505 mercury vapor headspace readings were observed above background. After sampling, groundwater was gauged at about 18 feet bgs.
 - MW31: Petroleum-like odors were observed emanating from the monitoring well. PID headspace readings were observed up to 360.9 ppm. Jerome J505 mercury vapor headspace readings were observed up to 2.79 micrograms per meter cubed ($\mu\text{g}/\text{m}^3$). After sampling, groundwater was gauged at about 15 feet bgs.
 - MW32: Petroleum-like odors were observed emanating from the monitoring well. PID headspace readings were observed up to 32.0 ppm. No Jerome J505 mercury vapor headspace readings were observed above background. After sampling, groundwater was gauged at about 15 feet bgs.
 - MW33: Petroleum-like odors were observed emanating from the monitoring well. No PID or Jerome J505 mercury vapor headspace readings were observed above background. After sampling, groundwater was gauged at about 15 feet bgs.

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Tyler Zorn, Lexi Haley
	LANGAN

SITE OBSERVATION REPORT

- MW34: Petroleum-like odors were observed emanating from the monitoring well. No PID or Jerome J505 mercury vapor headspace readings were observed above background. After sampling, groundwater was gauged at about 15 feet bgs.

Material Tracking

- No material was imported to the site.
- No material was exported from the site.
- All purged groundwater was containerized in a 55-gallon drum. The drum was stored on-site for future off-site disposal.

Sampling

Groundwater samples were collected and relinquished to Alpha Analytical, Inc., a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Mahwah, New Jersey (ELAP No. 11148) for analyses proposed in the RIWP:

- The following samples were submitted for Part 375/TCL volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, Parts 375/TAL metals (total and dissolved) including hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS)
 - MW26_090220
 - MW30_090220
 - MW31_090220
 - MW32_090220
 - MW33_090220
 - MW34_090220
- Four quality assurance/quality control soil samples (one field blanks, one equipment blank, one trip blank, and one duplicate) were collected and submitted for analysis.

CAMP Activities

Continuous air monitoring was not conducted because ground-intrusive activities were not performed at the site. Langan conducted periodic monitoring for VOCs and mercury vapor upon arrival and departure and during sampling at the sampled monitoring well locations. VOC and/or mercury vapor concentrations were observed above background during monitoring well headspace monitoring, however ambient air monitoring concentrations near sampled monitoring wells were below background.

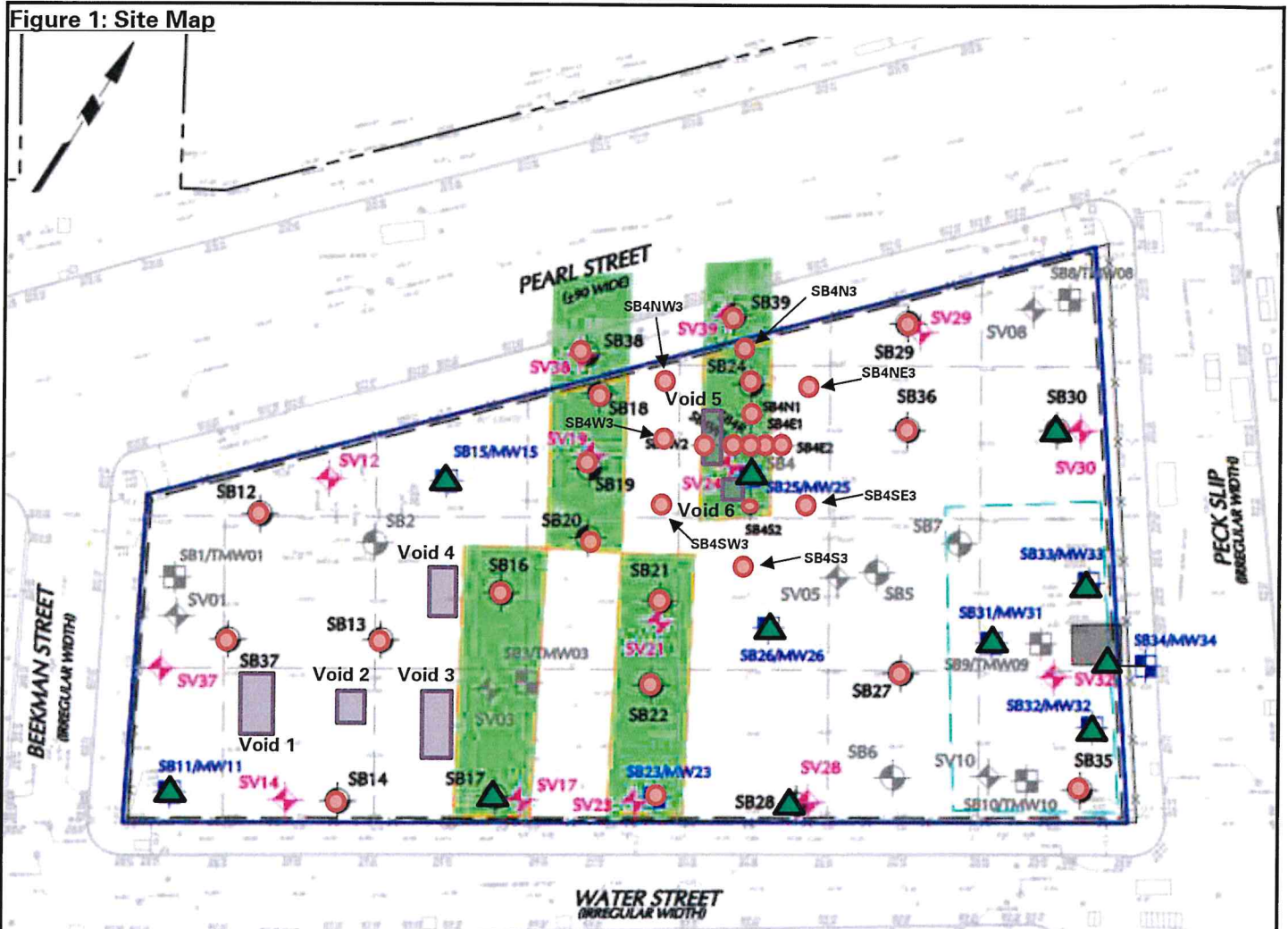
Anticipated Activities

- Langan will conduct a synoptic monitoring well gauging event on September 3, 2020.
- The monitoring well survey is scheduled for the third week of September, 2020.






Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

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

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.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley LANGAN
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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of downwind ambient air monitoring while groundwater sampling



Photo 2: PID screening of monitoring well MW33

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Lexi Haley LANGAN
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SITE OBSERVATION REPORT



Photo 3: Jerome screening at monitoring well MW34



Photo 4: Typical groundwater sampling set up

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Tyler Zorn, Lexi Haley

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SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Tuesday, August 18, 2020	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Sunny, 66-84 °F Wind: WNW @ 0-7 mph	
LOCATION: New York, NY		TIME: 6:45 am – 3:45 pm	
BCP SITE ID: C231127		CONTRACTOR: AARCO Environmental Services Corp. (AARCO)	
		LANGAN REP. : Tyler Zorn Thomas Schiefer	
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX		PRESENT AT SITE: Tyler Zorn, Thomas Schiefer – Langan Rohn Dixon, Jose Garcia – AARCO Environmental Services Corp.	
		RI Day 12	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:			
<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>Site Activities</p> <ul style="list-style-type: none"> • 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"> ○ 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). ○ 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. ○ 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. ○ 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. 			
Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
		LANGAN	

SITE OBSERVATION REPORT

- 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.

Cc:	J. Yanowitz, P. McMahan, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
			LANGAN

SITE OBSERVATION REPORT

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/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ 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 ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
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/m³ = milligrams per cubic meter
 ppm = parts per million
 µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
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

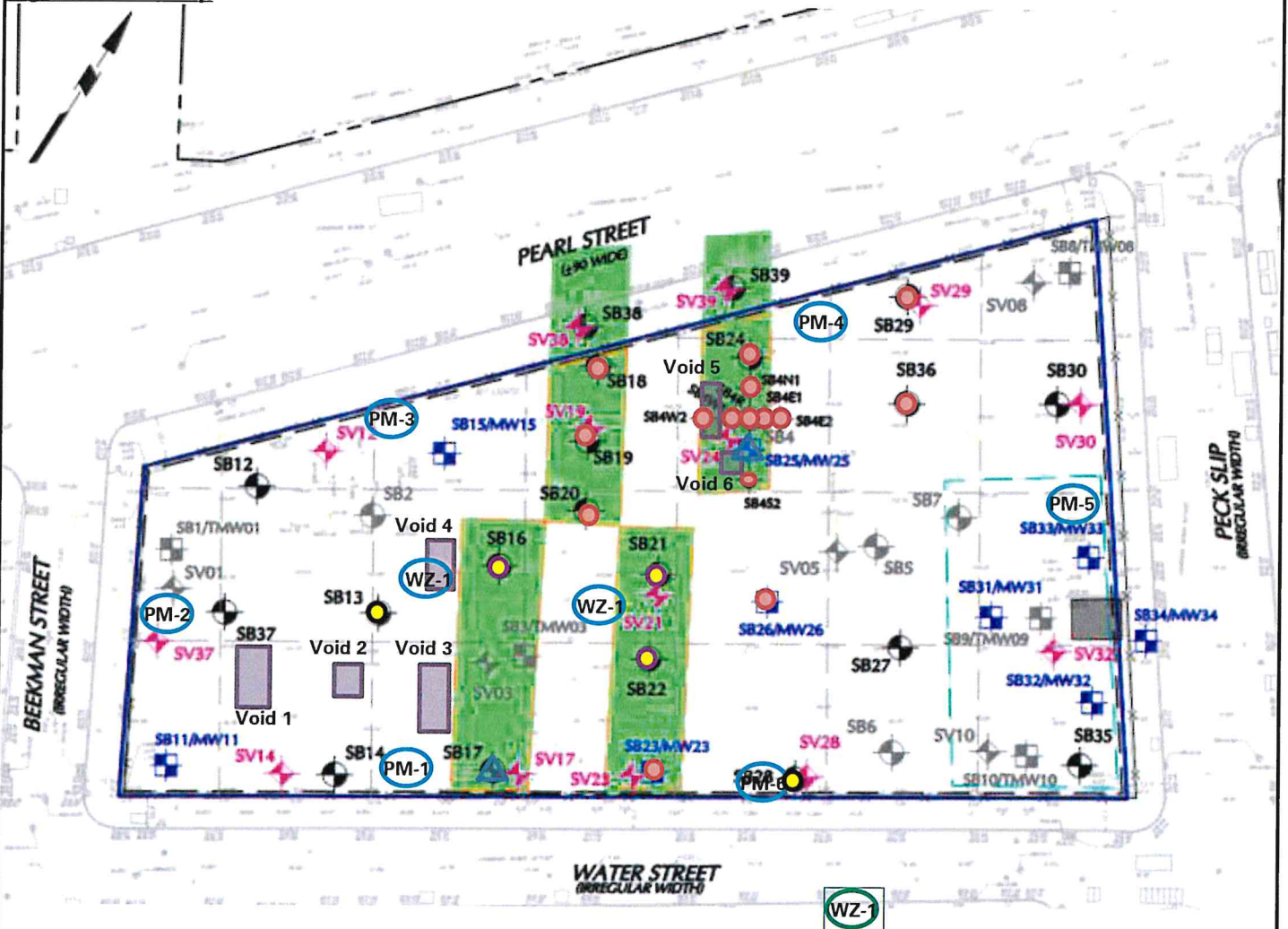
Anticipated Activities

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










Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
			LANGAN

SITE OBSERVATION REPORT

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.

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Tyler Zorn, Thomas Schiefer

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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: View of soil from boring SB21.

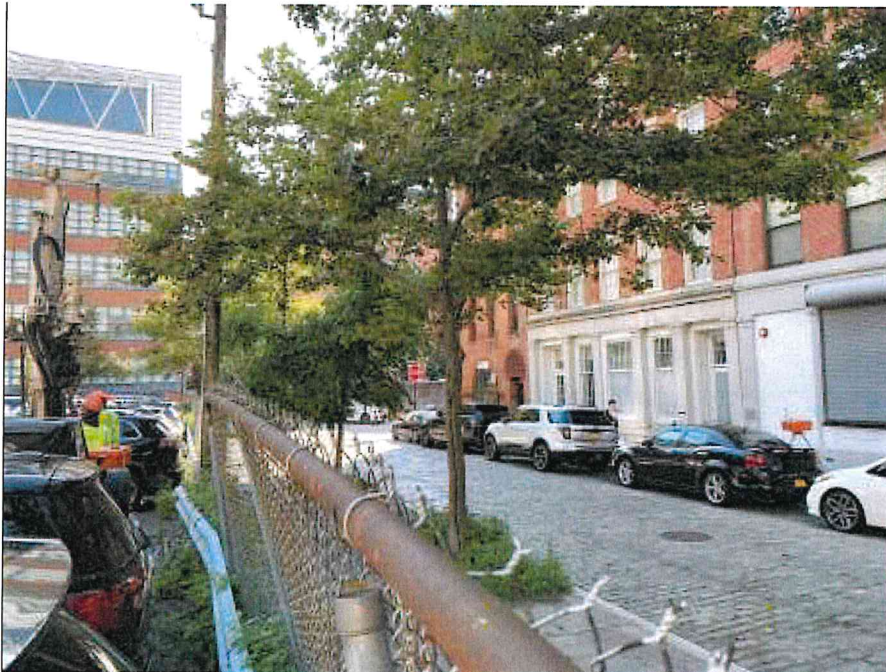


Photo 2: Perimeter CAMP station PM-6 and off-site CAMP station WZ-1 along Water Street during the drilling of boring SB28 (facing east).

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer
			LANGAN

SITE OBSERVATION REPORT



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

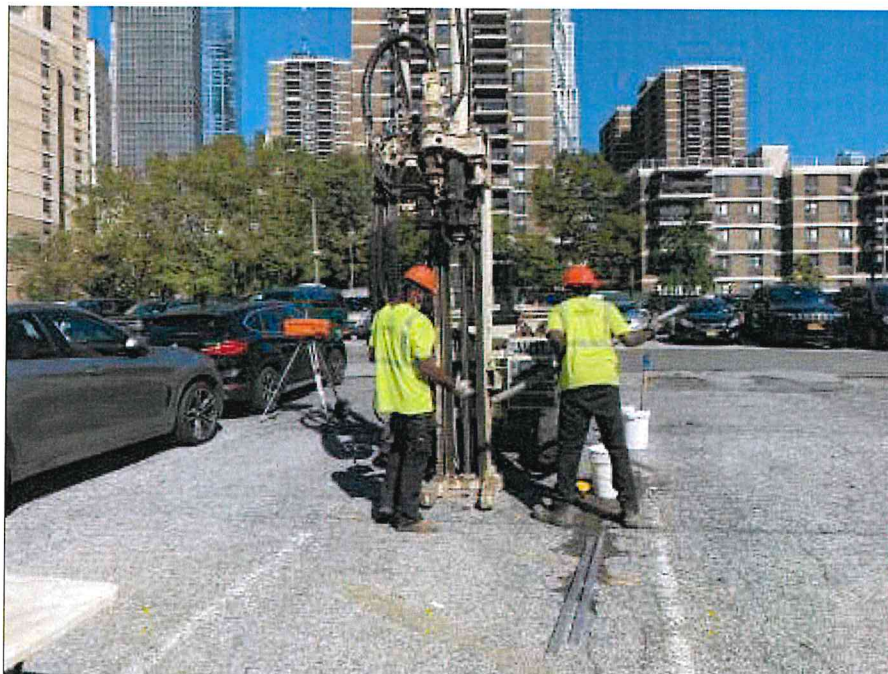


Photo 4: AARCO drilling boring SB22 (facing northeast).

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Tyler Zorn, Thomas Schiefer LANGAN
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DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

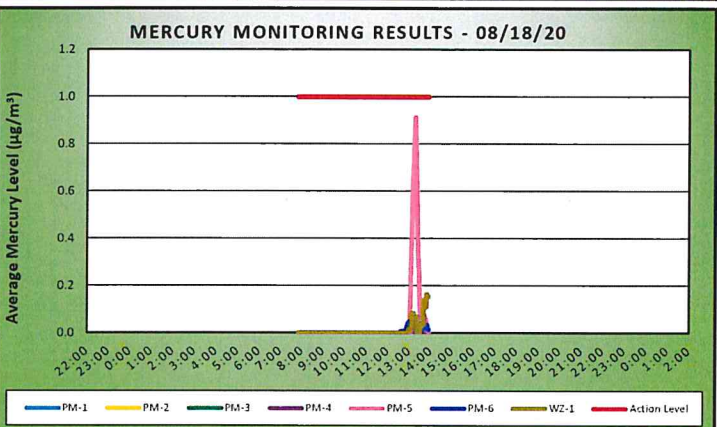
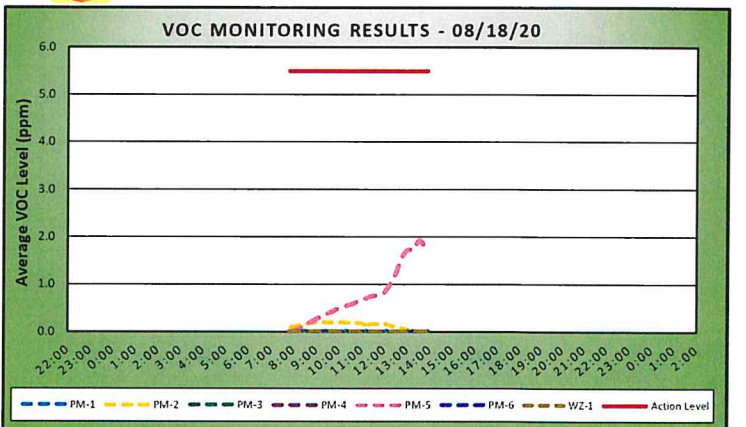
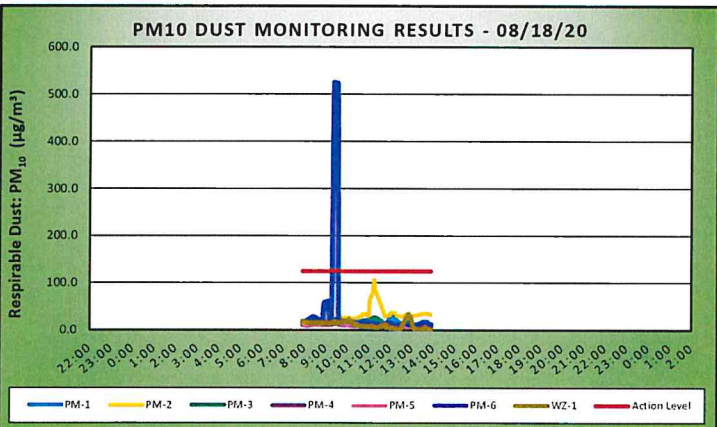
Manhattan, New York

08/18/20	
Project number: 170381202	
Page 1 of 2	Rev. No. 0
Submitted By:	
Dust Background & Action Level (µg/m3)	25 125
VOC Background & Action Level (ppm)	0.5 5.5
Hg Background & Action Level (µg/m3)	0.0 1.0

Weather Data Range for Work Day		Wind Direction	N	Relative Humidity (%)	41.0 - 76.4	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported concentrations during work hours.
Temp (°F)	69.2 - 82.5	Wind Speed (MPH)	0.1 - 0.1	Barometer (inHg)	29.93 - 29.96			

Station Location Area	Work	Daily Avg. Dust Concentration (µg/m ³)	Max 15 Minute Dust Concentration (µg/m ³)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		15.8	34.6	12:06	0.0	0.0	7:54
PM-2		30.6	106.3	11:15	0.1	0.2	9:04
PM-3		16.6	26.2	11:15	0.0	0.0	8:04
PM-4		10.0	13.8	9:23	0.0	0.0	7:54
PM-5		10.3	19.1	9:05	0.8	1.9	13:32
PM-6		38.6	525.9	9:20	0.0	0.0	7:55
WZ-1		11.1	34.2	12:50	0.0	0.0	7:48

Station Location Area	Work	Daily Avg. Mercury Concentration (µg/m ³)	Max 15 Minute Mercury Concentration (µg/m ³)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.0	0.0	8:09
PM-2		0.0	0.0	7:55
PM-3		0.0	0.0	8:05
PM-4		0.0	0.0	7:55
PM-5		0.0	0.9	13:16
PM-6		0.0	0.1	13:02
WZ-1		0.0	0.2	13:48



Air Monitoring Notes:

Sampling Notes:

Weather Notes:

SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127		CLIENT: 250 Seaport District, LLC	DATE: Thursday, July 30, 2020 WEATHER: Sunny, 80-92 °F Wind: SSW @ 1.0 mph (9:16am) to S @ 5.6 mph (10:21am) TIME: 5:45 am – 4:30 pm
CONTRACTOR: AARCO Environmental Services Corp.		LANGAN REP. : Ashley Stappenbeck Adrian Heath	
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX		PRESENT AT SITE: Ashley Stappenbeck, Adrian Heath – Langan Sergio Magana, Jose Romero – AARCO Environmental Services Corp.	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing Phase 3 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). Site Activities <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> Boring SB18: 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. A maximum mercury vapor concentration above background of 0.21 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was identified with a Jerome J505 unit from 8 to 10 feet bgs. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). Boring SB20: Boring was advanced to 32 feet bgs. Petroleum-like odors, staining, and PID readings up to 370.4 parts per million (ppm) were observed from 17 to 24 feet bgs. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.03 $\mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 6 to 8 feet bgs. Total mercury concentrations evaluated with the XRF were less than the LOD. Boring SB16: Boring was advanced to refusal at 10 feet bgs. Wood with a creosote-like odor was identified in the cutting shoe at the refusal depth. Four step-off borings were attempted around the original boring location. No petroleum-like odors, staining, or PID readings above background were observed in soil. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.07 $\mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 4 to 6 feet bgs. Total mercury concentrations evaluated with the XRF were less than the LOD. Boring SB21: Boring was advanced to refusal 10 feet bgs. Wood with a creosote-like odor was identified in the cutting shoe at the refusal depth. Four step-off borings were attempted around the original boring location. Petroleum-like odors, staining, and PID readings up to 42.9 ppm were observed from 6 to 8 feet bgs. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration 			
Cc: J. Yanowitz, P. McMahan, M. Raygorodetsky	By: Ashley Stappenbeck LANGAN		

SITE OBSERVATION REPORT

above background of $0.08 \mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 8 to 10 feet bgs. Total mercury concentrations evaluated with the XRF were less than the LOD.

- Boring SB22: Boring was advanced to refusal at 9.5 feet bgs. Wood with a creosote-like odor was identified in the cutting shoe at the refusal depth. Three step-off borings were attempted around the original boring location. No petroleum-like odors, staining, or PID readings above background were observed in soil. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of $0.14 \mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 2 to 4 feet bgs. Total mercury concentrations evaluated with the XRF were less than LOD.
- All soil borings were backfilled with 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.
- Impacted soil cutting from borings SB20 and SB21 were containerized and sealed in a 55-gallon drum; the drum was stored on site for future off-site disposal.

Sampling

The following 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):
 - SB18: 0-2, 7-8, and 18-20 feet bgs
 - SB20: 0-2, 10-12, and 20-22 feet bgs
- The following sample depths were submitted for analysis of VOCs, SVOCs, and metals including mercury and hexavalent and trivalent chromium:
 - SB20: 30-32 feet bgs
- Three quality assurance/quality control soil samples (one field blank, one trip blank, and one equipment blank) were collected and submitted for analysis.

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Ashley Stappenbeck

LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), 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/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.027	0.4	0.1
PM-2	0.036	0.0	0.0
PM-3	0.030	0.0	0.0
PM-4	0.019	0.0	0.0
PM-5	0.018	0.5	0.0
PM-6	0.020	0.0	0.0
WZ-1	0.018	0.3	0.1

mg/m³ = milligrams per cubic meter

ppm = parts per million

µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.035	0.7	0.6
PM-2	0.043	0.0	0.0
PM-3	0.048	0.0	0.1
PM-4	0.030	0.3	0.0
PM-5	0.026	1.6	0.0
PM-6	0.034	0.0	0.0
WZ-1	0.030	0.7	0.3

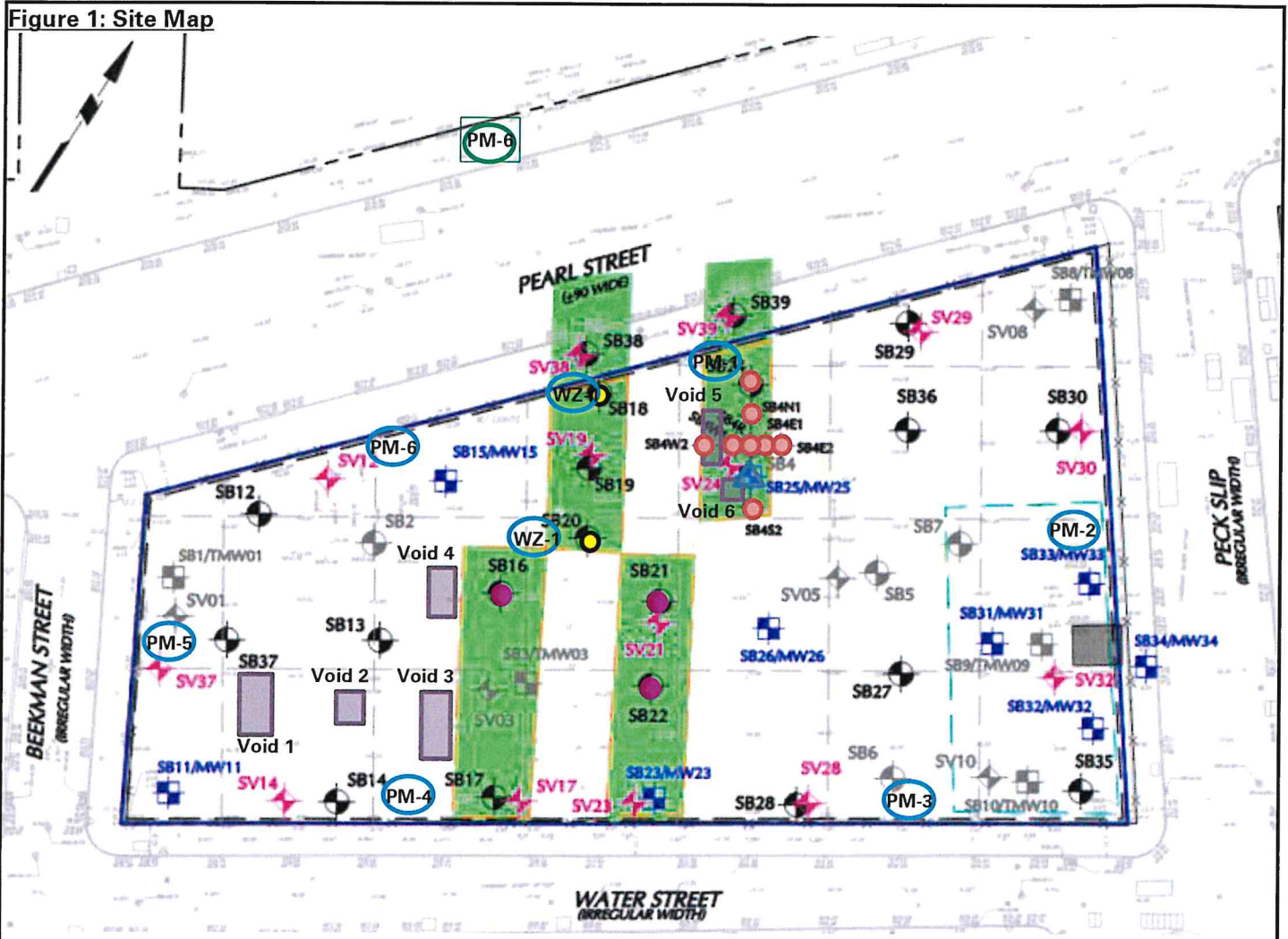
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells within the Phase 3 work area.










Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Ashley Stappenbeck
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

-  Site Boundary
-  Approximate area of suspected void space
-  Approximate location of soil borings sampled
-  Approximate location of previously sampled soil borings
-  Approximate location of soil borings advanced to refusal
-  Approximate location of previously 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.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Ashley Stappenbeck LANGAN
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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: AARCO advancing soil boring SB20 in the northern part of the site (facing north)

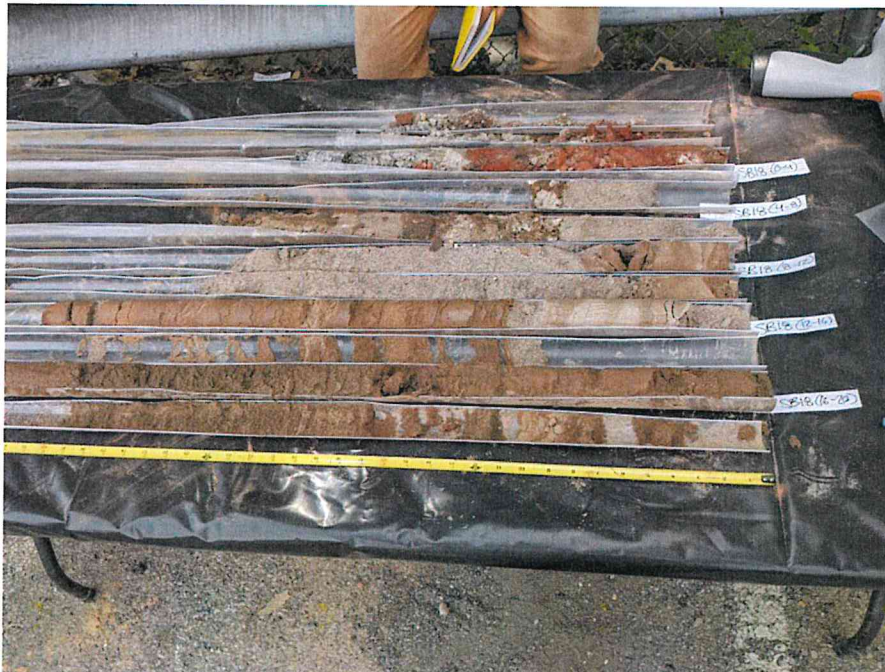


Photo 2: View of soil from boring SB18

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			LANGAN

SITE OBSERVATION REPORT

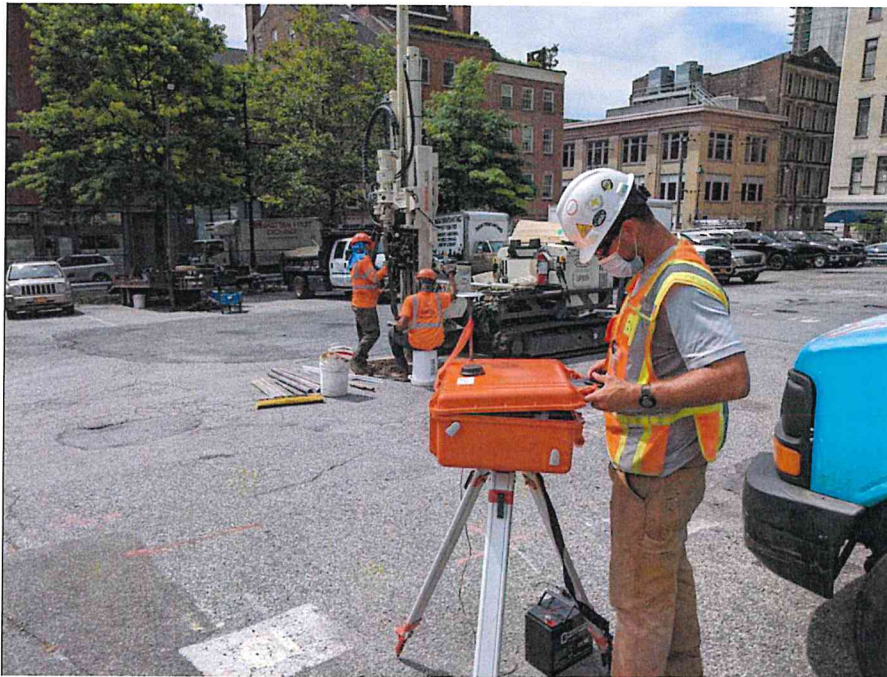


Photo 3: View of Langan checking air monitoring station WZ-1 while AARCO advances soil boring SB16 (facing south)

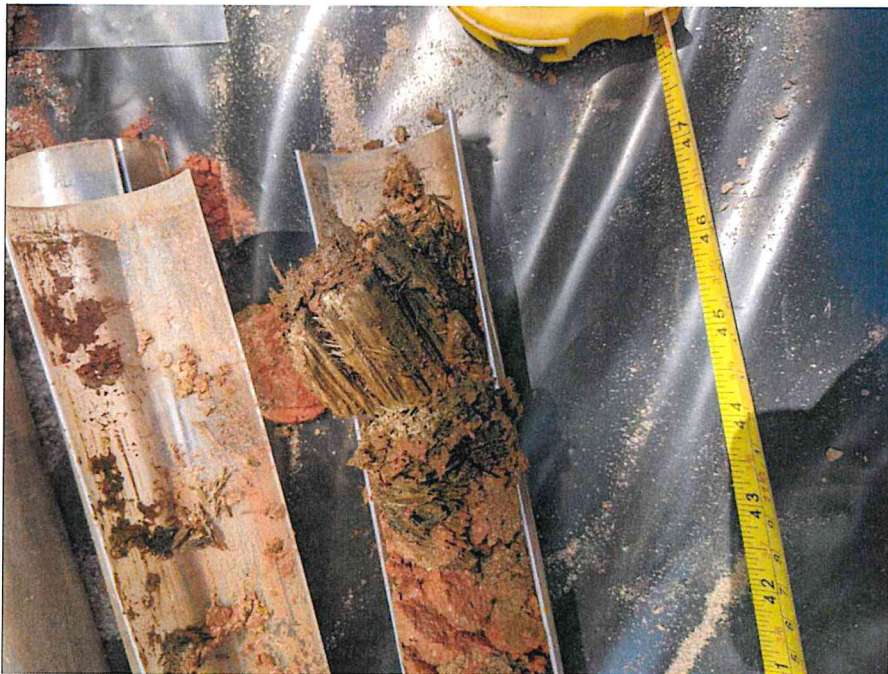


Photo 4: View of wood found at refusal depth at boring SB16 (facing northwest)

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By: Ashley Stappenbeck

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DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

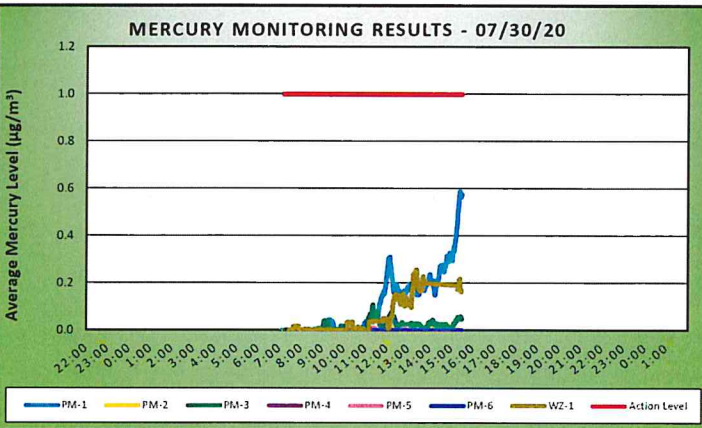
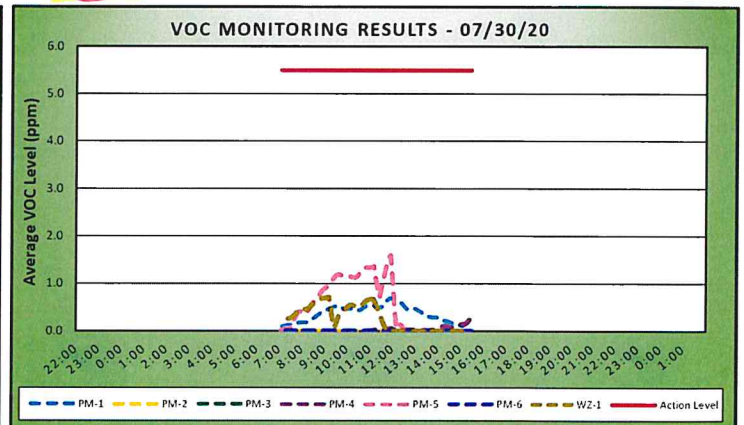
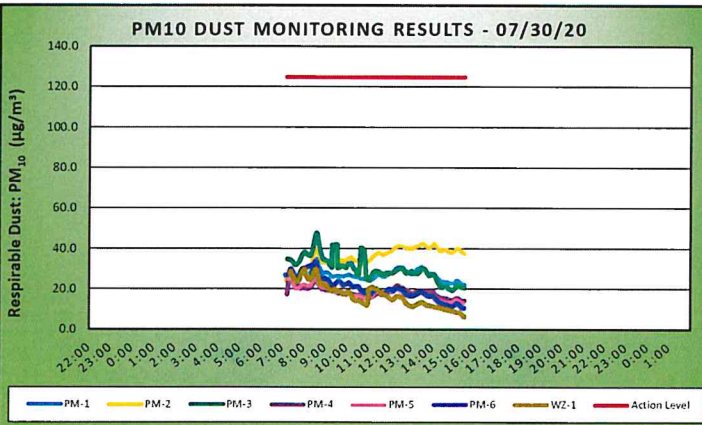
Manhattan, New York

07/30/20	
Project number: 170381202	
Page 1 of 2	Rev. No. 0
Submitted By:	
Dust Background & Action Level ($\mu\text{g}/\text{m}^3$)	25 125
VOC Background & Action Level (ppm)	0.5 5.5
Hg Background & Action Level ($\mu\text{g}/\text{m}^3$)	0.0 1.0

Weather Data Range for Work Day		Wind Direction	SSE	Relative Humidity (%)	38.0 - 57.2	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported concentrations during work hours.
Temp (°F)	79.8 - 92.3	Wind Speed (MPH)	1.0 - 5.6	Barometer (inHg)	29.88 - 29.95			

Station Location Area	Work	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		26.8	34.8	8:34	0.4	0.7	11:59
PM-2		35.9	42.5	14:03	0.0	0.0	7:10
PM-3		30.0	47.5	8:34	0.0	0.0	7:13
PM-4		18.5	29.6	7:24	0.0	0.3	15:27
PM-5		18.1	25.9	8:33	0.5	1.6	11:56
PM-6		20.2	33.9	8:32	0.0	0.0	9:38
WZ-1		18.0	29.7	7:59	0.3	0.7	9:10

Station Location Area	Work	Daily Avg. Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.1	0.6	15:21
PM-2		0.0	0.0	14:36
PM-3		0.0	0.1	11:19
PM-4		0.0	0.0	7:47
PM-5		0.0	0.0	11:21
PM-6		0.0	0.0	7:23
WZ-1		0.1	0.3	13:22

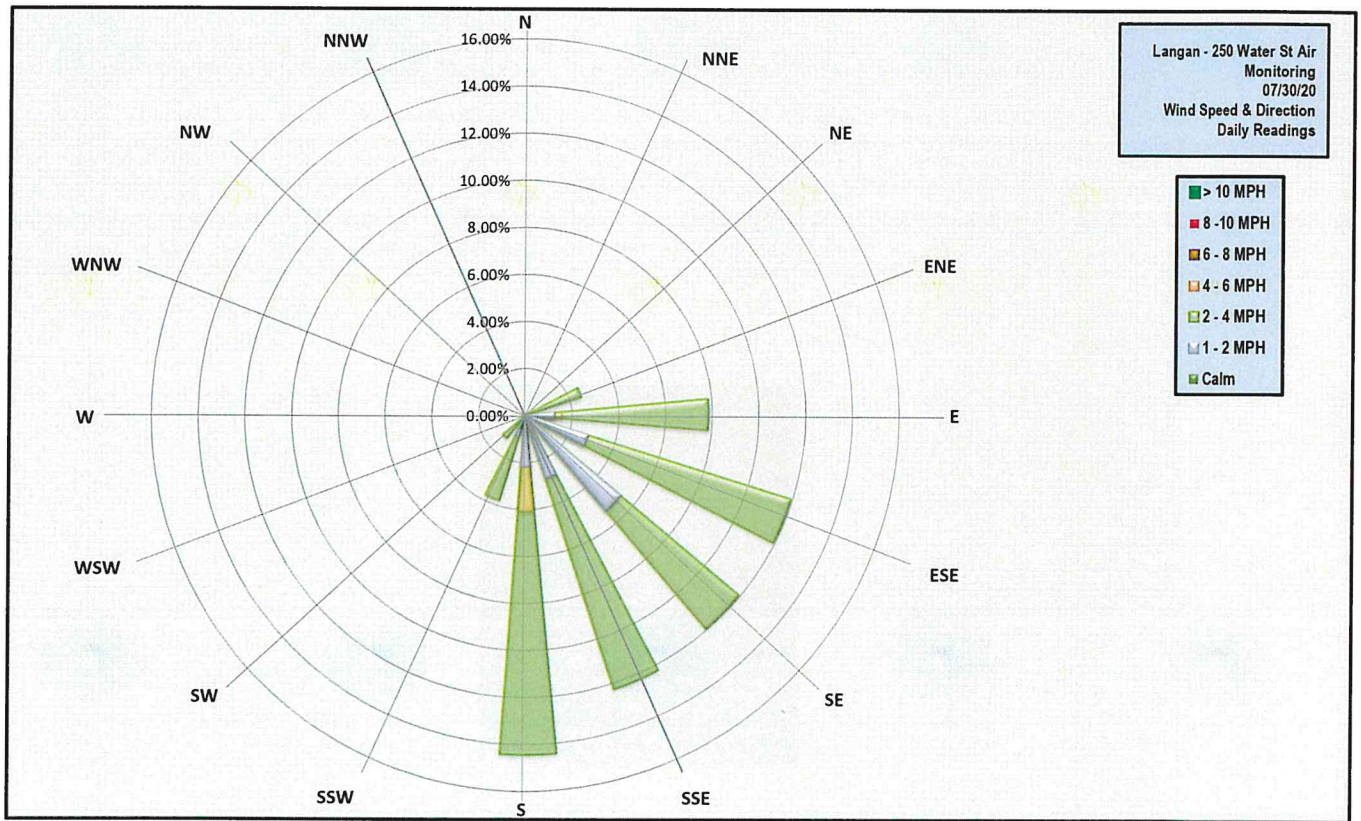


Air Monitoring Notes:

Sampling Notes:

Weather Notes:





SITE OBSERVATION REPORT

PROJECT No.: 170381202	CLIENT: 250 Seaport District, LLC	DATE: Wednesday, July 29, 2020
PROJECT: 250 Water Street		WEATHER: Sunny, 80-90 °F Wind: SE @ 0.6 mph (6:56 am) to S @ 6.6 mph (2:52 pm)
LOCATION: New York, NY		TIME: 5:45 am – 5:45 pm
BCP SITE ID: C231127		

CONTRACTOR: AARCO Environmental Services Corp.	LANGAN REP. : Ashley Stappenbeck Adrian Heath
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EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: Ashley Stappenbeck, Adrian Heath, Paul McMahon – Langan Nick Turro, Sergio Magana – AARCO Environmental Services Corp.	RI Day 7
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OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan continued implementing Phase 3 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).

Site Activities

- AARCO used a Geoprobe 7822 DT drill rig with 4-foot-long Macro-Core® samplers to advance four soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples.
 - Boring SB4S2: Boring was advanced to 30 feet below grade surface (bgs). Petroleum-like odors, staining, and photoionization detector (PID) readings up to 42 parts per million (ppm) were observed at 17 to 21 feet bgs. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.88 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was identified with a Jerome J505 unit from 4 to 6 feet bgs. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were identified at a maximum concentration of 23 ppm from 4 to 6 feet bgs.
 - Boring SB4W2: Boring was advanced to 30 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 1.72 $\mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 14 to 16 feet bgs. Total mercury concentrations evaluated with the XRF were identified at a maximum concentration of 179 ppm from 2 to 4 feet bgs.
 - Boring SB24: Boring was advanced to 30 feet bgs. No petroleum-like odors, staining, or PID readings above background were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.75 $\mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 6 to 8 feet bgs. Total mercury concentrations evaluated with the XRF were identified at a maximum concentration of 257 ppm from 2 to 4 feet bgs.
 - Boring SB19: 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. A maximum mercury vapor concentration above background of 0.10 $\mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 14 to 16 feet bgs. Total mercury concentrations evaluated with the XRF were less than limit of detection (LOD).

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Adrian Heath
	LANGAN

SITE OBSERVATION REPORT

- All soil borings were backfilled with 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

The following 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 total mercury:
 - SB4S2: 0-2, 2-4, 4-6, 6-8, 8-10,10-12, 12-14, 14-16, 16-18, and 18-20 feet bgs
 - SB4W2: 0-2, 2-4, 4-6, 6-8, 8-10,10-12, 12-14, 14-16, 16-18, and 18-20 feet bgs
 - SB24: 0-2, 2-4, 4-6, 6-8, 8-10,10-12, 12-14, 14-16, 16-18, and 18-20 feet bgs
- Select samples will be additionally analyzed for mercury selective sequential extraction, pending total mercury results.
- Twelve quality assurance/quality control soil samples (five mercury field blanks, four mercury duplicates, four matrix spike/matrix spike duplicate, one trip blank, and one equipment blank) were collected and submitted for analysis.
- The following samples were placed on hold pending total mercury results from 0 to 20 feet bgs:
 - SB4S2: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
 - SB4W2: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
 - SB24: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB19: 0-2, 6-8, and 18-20 feet bgs
 - SB24: 0-2, 6-8, and 10-12 feet bgs
- The following sample depths were submitted for analysis of VOCs, SVOCs, and metals including hexavalent and trivalent chromium:
 - SB4S2: 18-19 and 22-23 feet bgs

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), 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/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.022	0.2	0.1
PM-2	0.032	0.0	0.0
PM-3	0.022	0.0	0.0
PM-4	0.019	0.0	0.0
PM-5	0.015	0.5	0.0
PM-6	0.017	0.0	0.0
WZ-1	0.011	0.0	0.1

mg/m³ = milligrams per cubic meter

ppm = parts per million

µg/m³ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.028	1.9	0.8
PM-2	0.039	0.0	0.2
PM-3	0.038	0.1	0.1
PM-4	0.027	0.0	0.0
PM-5	0.023	2.4	0.0
PM-6	0.031	1.5	0.0
WZ-1	0.038	0.0	0.4

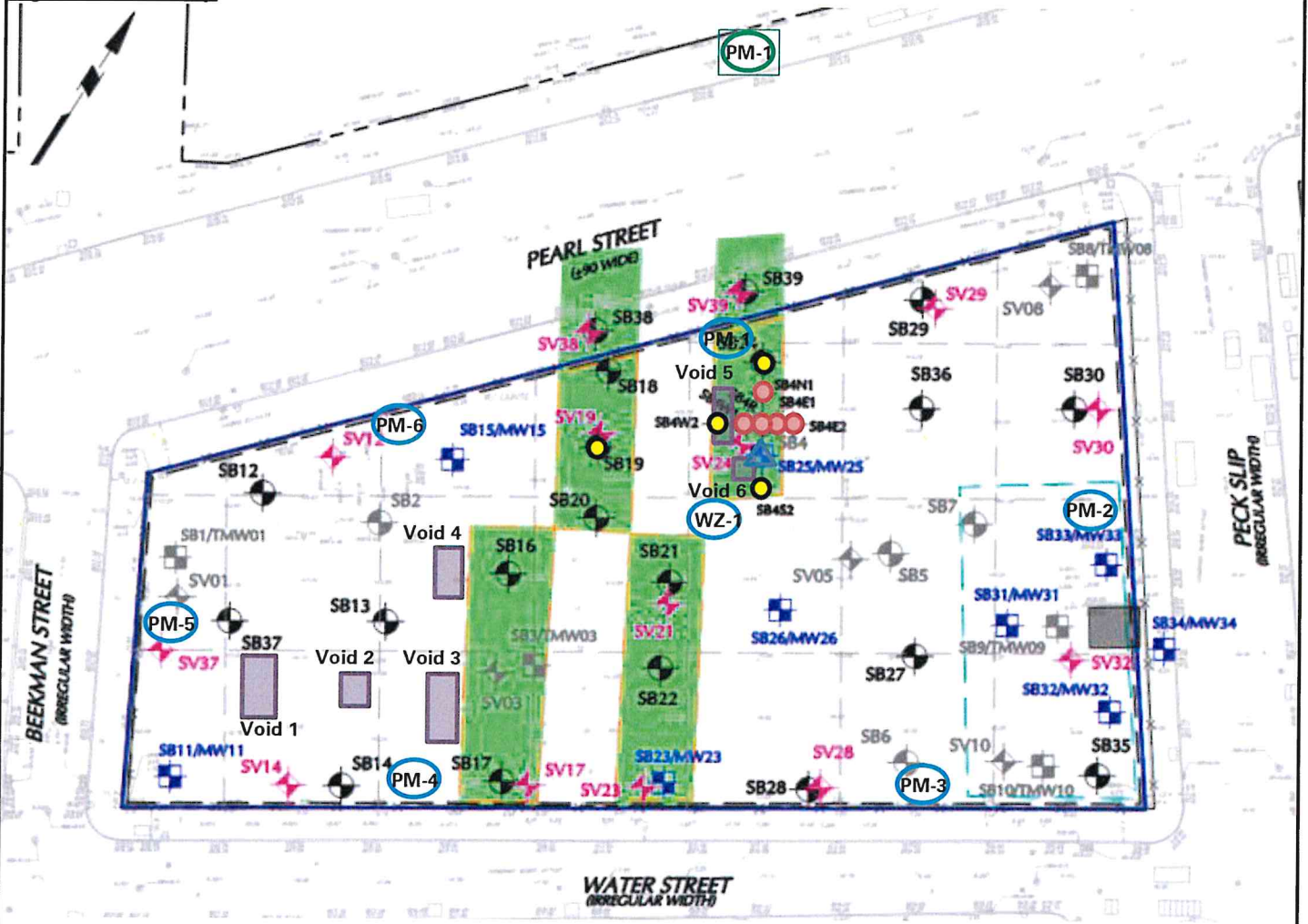
Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells within the Phase 3 work area.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of previously sampled soil borings
- Approximate location of previously completed soil borings and monitoring well
- Approximate location of air monitoring station (on-site)
- Approximate location of air monitoring station (off-site)
- 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.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

Select Site Photographs:

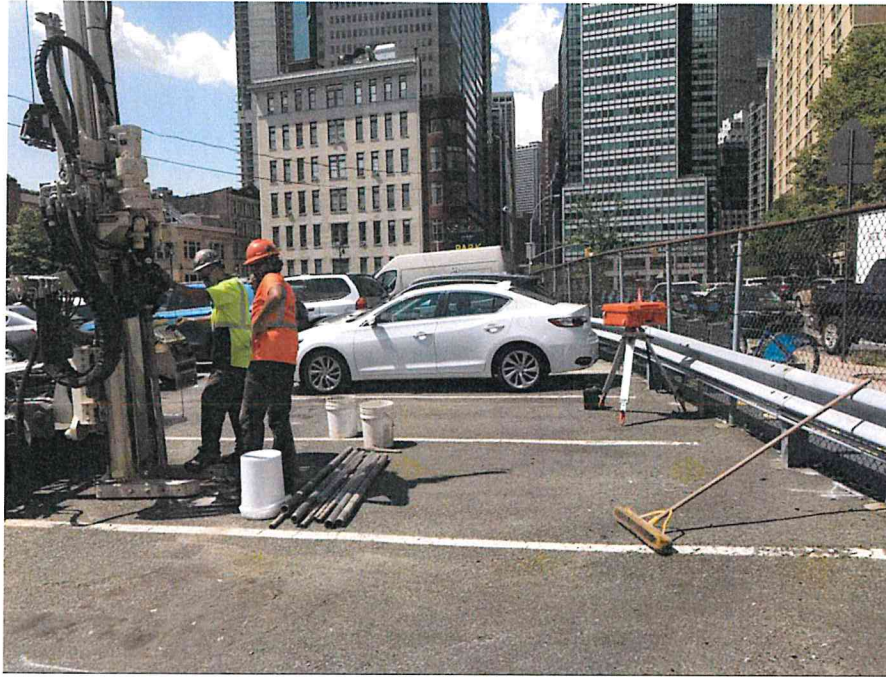


Photo 1: AARCO advancing soil boring SB24 in the northern part of the site (facing southwest)

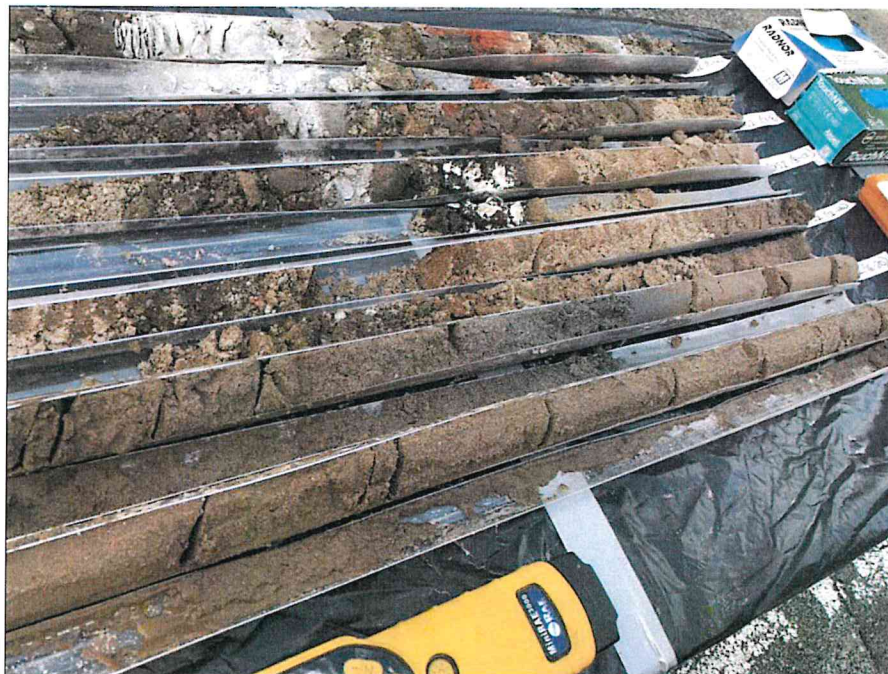


Photo 2: View of soil from boring SB4S2

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

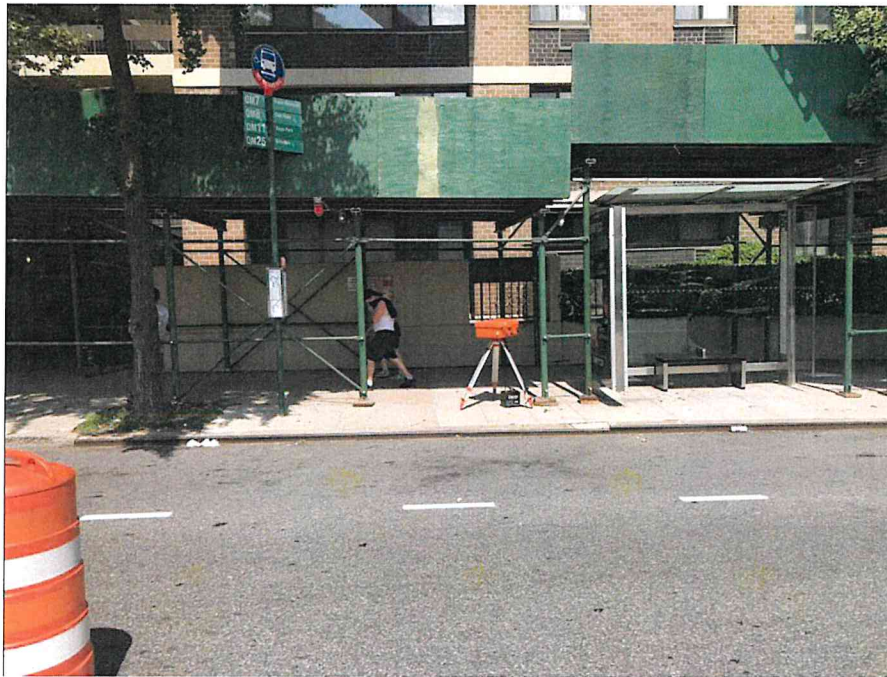


Photo 3: View of air monitoring station PM-1 while AARCO advances soil boring SB-24 (facing north)

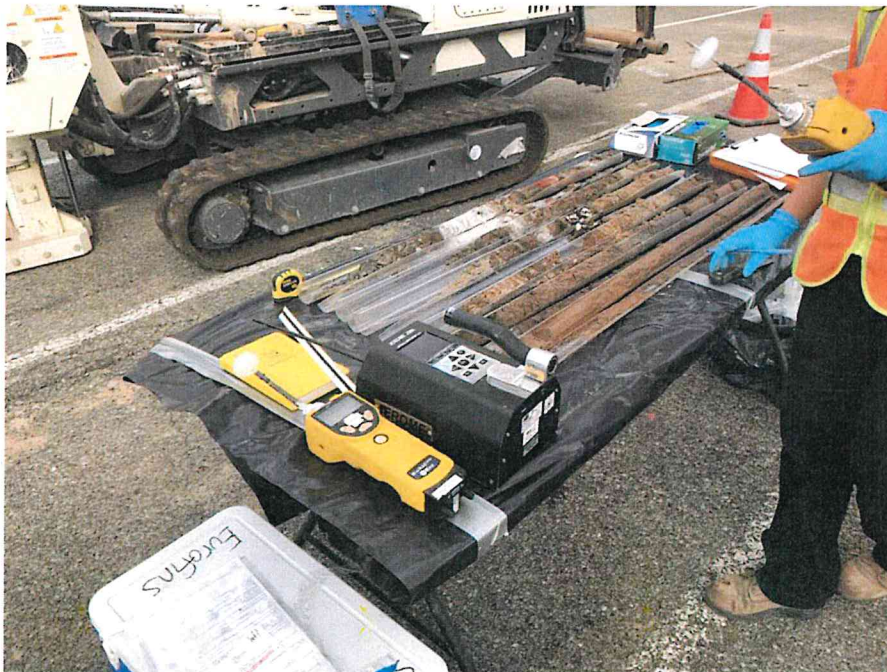


Photo 4: Langan preparing to screen soil for VOCs (facing northwest)

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath

LANGAN



DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

Manhattan, New York

07/29/20

Project number: 170381202

Page 1 of 2

Rev. No. 0

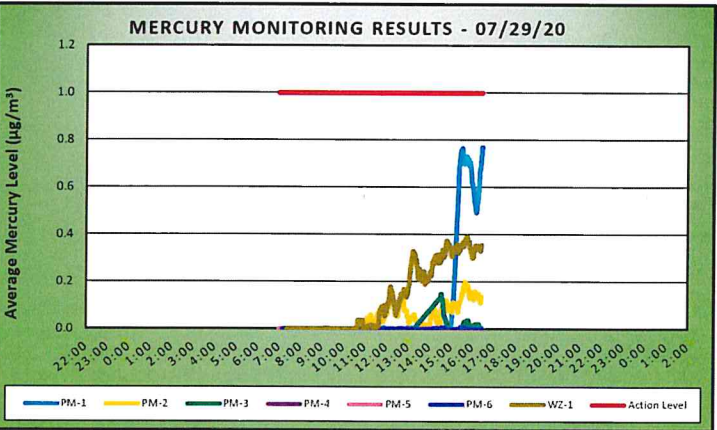
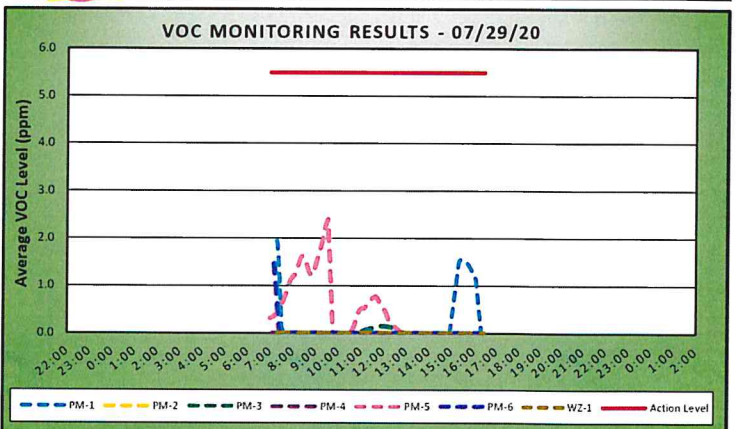
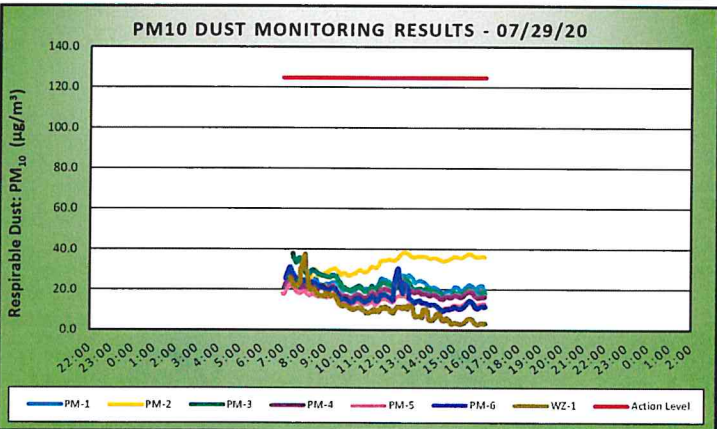
Submitted By:

Dust Background & Action Level ($\mu\text{g}/\text{m}^3$)	25	125
VOC Background & Action Level (ppm)	0.5	5.5
Hg Background & Action Level ($\mu\text{g}/\text{m}^3$)	0.0	1.0

Weather Data Range for Work Day		Wind Direction	S	Relative Humidity (%)	43.0 - 62.9	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported concentrations during work hours.
Temp ($^{\circ}\text{F}$)	80.6 - 89.9	Wind Speed (MPH)	0.6 - 6.6	Barometer (inHg)	29.95 - 30.02			

Station Location Area	Work	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		22.3	28.4	7:16	0.2	1.9	7:15
PM-2		32.1	38.5	12:41	0.0	0.0	7:19
PM-3		22.4	37.7	7:27	0.0	0.1	11:52
PM-4		19.2	27.3	12:24	0.0	0.0	7:05
PM-5		14.8	22.8	7:20	0.5	2.4	9:32
PM-6		16.8	31.2	7:20	0.0	1.5	7:09
WZ-1		11.4	37.5	8:03	0.0	0.0	7:20

Station Location Area	Work	Daily Avg. Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.1	0.8	16:25
PM-2		0.0	0.2	15:39
PM-3		0.0	0.1	14:32
PM-4		0.0	0.0	7:06
PM-5		0.0	0.0	7:00
PM-6		0.0	0.0	15:41
WZ-1		0.1	0.4	15:44



Air Monitoring Notes:

Sampling Notes:

Weather Notes:

SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Tuesday, July 28, 2020	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Sunny, 85-95 °F Wind: S @ 0.8 mph (9:03am) to S @ 5.9 mph (13:40pm)	
LOCATION: New York, NY		TIME: 6:00 am – 4:30 pm	
BCP SITE ID: C231127			
CONTRACTOR: AARCO Environmental Services Corp.		LANGAN REP. : Ashley Stappenbeck Adrian Heath	
EQUIPMENT: Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 6 Ashley Stappenbeck, Adrian Heath, Mimi Raygorodetsky – Langan Rick Lin – NYSDEC Brian Ehalt – EXCEL Environmental Resources Nick Turro, Jose Romoro – AARCO Environmental Services Corp.		
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing Phase 3 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).			
Site Activities <ul style="list-style-type: none"> • AARCO used a Geoprobe 7822 DT drill rig with 4-foot-long Macro-Core® samplers to advance three soil borings to about 30 feet below grade surface (bgs). Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples. <ul style="list-style-type: none"> ○ Boring SB25: No petroleum-like odors, staining, or elevated photoionization detector (PID) readings were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations above background were identified with a Jerome J405 or J505 unit at a maximum concentration of 1.72 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) from 4 to 6 feet bgs. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD). ○ Boring SB4N1: No petroleum-like odors, staining, or elevated PID readings were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.23 $\mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 0 to 2 feet bgs. Total mercury concentrations evaluated with the XRF were identified at a maximum concentrations of 63 parts per million (ppm) from 0 to 2 feet bgs. ○ Boring SB4E2: No petroleum-like odors, staining, or elevated PID readings were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.13 $\mu\text{g}/\text{m}^3$ was identified with a Jerome J505 unit from 4 to 6 feet bgs. Total mercury concentrations evaluated with the XRF were less than the LOD. • All soil borings were backfilled with drill cuttings from the borehole, clean sand, and/or bentonite and then patched with cold patch asphalt after sampling was completed. • AARCO used a Geoprobe 7822 DT drill rig to install monitoring well MW25 with the following construction: <ul style="list-style-type: none"> ○ MW25 consists of a 2-inch diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 12 to 22 feet bgs. MW25 will be developed at a future date. 			
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Adrian Heath	LANGAN	

SITE OBSERVATION REPORT

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

The following 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 total mercury:
 - SB25: 0-2, 2-4, 4-6, 6-8, 8-10, 10-12, 12-14, 14-16, 16-18, and 18-20 feet bgs
 - SB4N1: 0-2, 2-4, 4-6, 6-8, 8-10, 10-12, 12-14, 14-16, 16-18, and 18-20 feet bgs.
 - SB4E2: 0-2, 2-4, 4-6, 6-8, 8-10, 12-14, 14-16, 16-18, and 18-20 feet bgs

Due to low soil recovery, a sample could not be collected in soil boring SB4E2 from 10 to 12 feet bgs.

- Select samples will be additionally analyzed for mercury selective sequential extraction, pending total mercury results.
- Four quality assurance/quality control soil samples (two mercury field blanks, one trip blank, and one duplicate) were collected and submitted for analysis.
- The following samples were placed on hold pending total mercury results from 0 to 20 feet bgs:
 - SB25: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
 - SB4N1: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
 - SB4E2: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
 - SB25: 0-2, 6-8, and 28-30 feet bgs

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), 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/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.023	0.0	0.0
PM-2	0.035	0.0	0.2
PM-3	0.027	0.0	0.0
PM-4	0.018	0.1	0.0
PM-5	0.015	0.1	0.0
PM-6	0.018	0.0	0.0
WZ-1	0.013	0.3	0.1

mg/m³ = milligrams per cubic meter

ppm = parts per million

µg/m³ = micrograms per cubic meter

Max 15 Minute Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.045	0.0	0.6
PM-2	0.051	0.0	0.7
PM-3	0.067	0.2	0.0
PM-4	0.041	0.4	0.0
PM-5	0.038	0.3	0.0
PM-6	0.051	0.0	0.0
WZ-1	0.045	3.2	0.5

Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells within the Phase 3 work area.

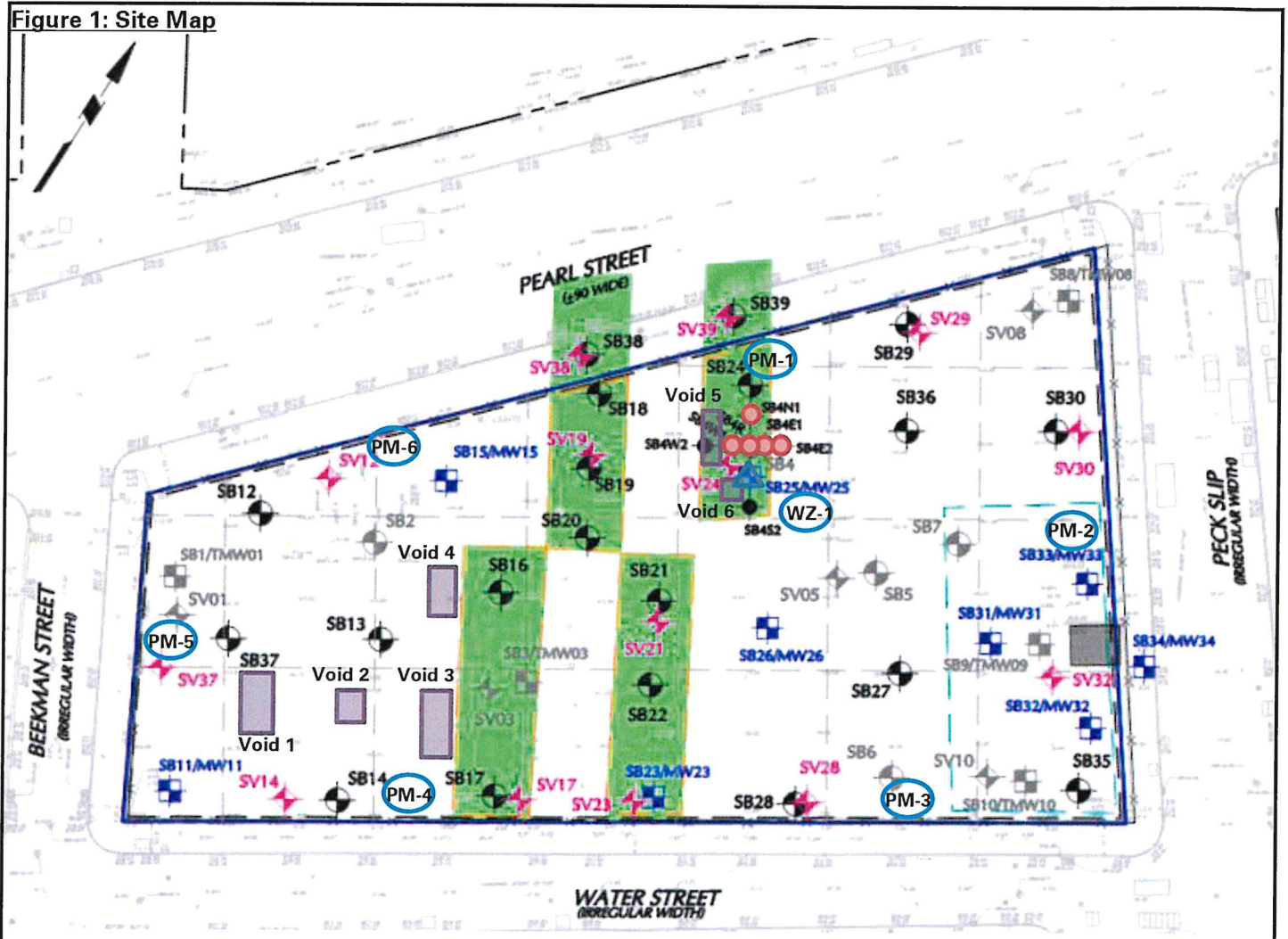
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath








LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

-  Site Boundary
-  Approximate area of suspected void space
-  Approximate location of soil borings sampled
-  Approximate location of soil borings sampled and monitoring well installed
-  Approximate location of air monitoring station (on-site)
-  Approximate location of air monitoring station (off-site)
-  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.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath LANGAN
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SITE OBSERVATION REPORT

Select Site Photographs:

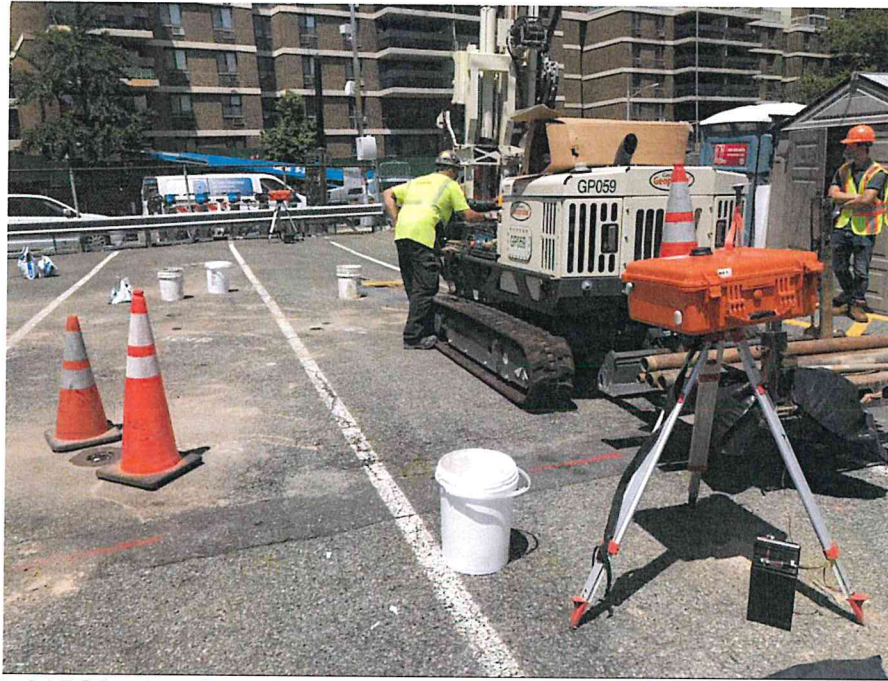


Photo 1: AARCO advancing soil boring SB4E2 in the northern part of the site (facing north)

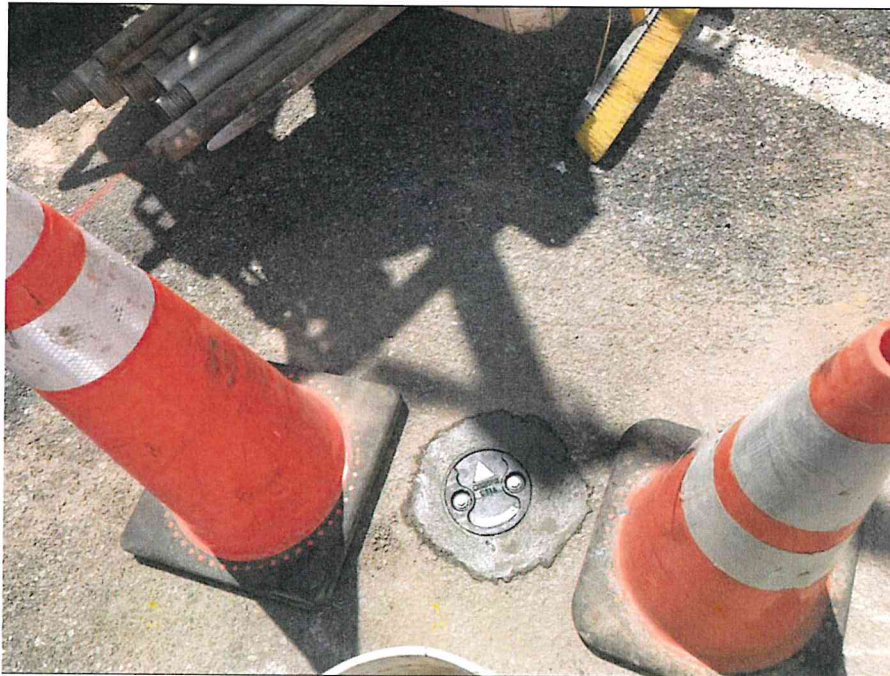


Photo 2: Monitoring well MW25 installed by AARCO

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath

LANGAN

SITE OBSERVATION REPORT

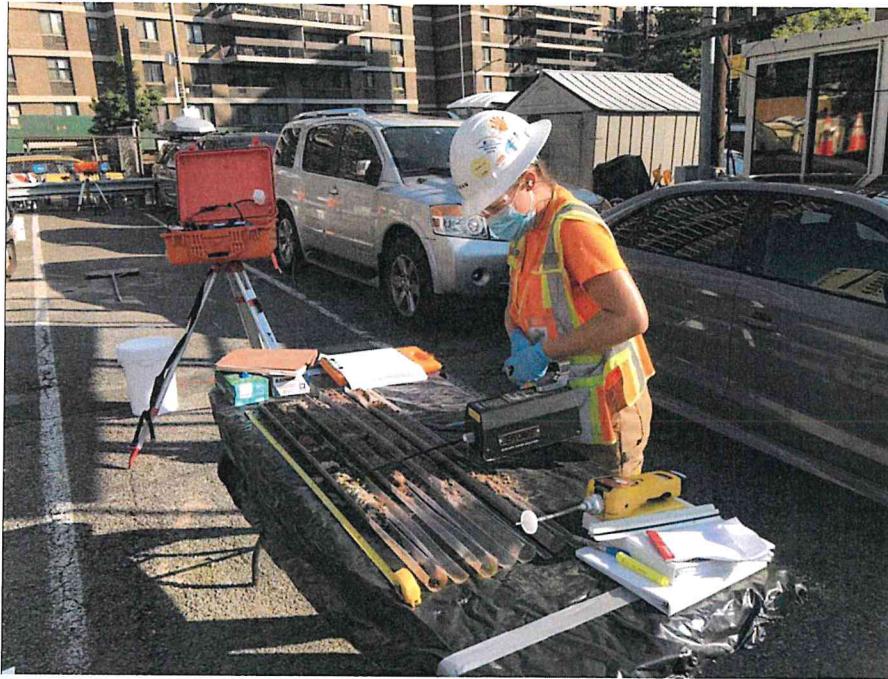


Photo 3: Langan collecting mercury vapor readings from a soil boring (facing north)



Photo 4: AARCO advancing soil boring SB4N1 and Langan sampling soil in the northern part of the site (facing north)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath LANGAN
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DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

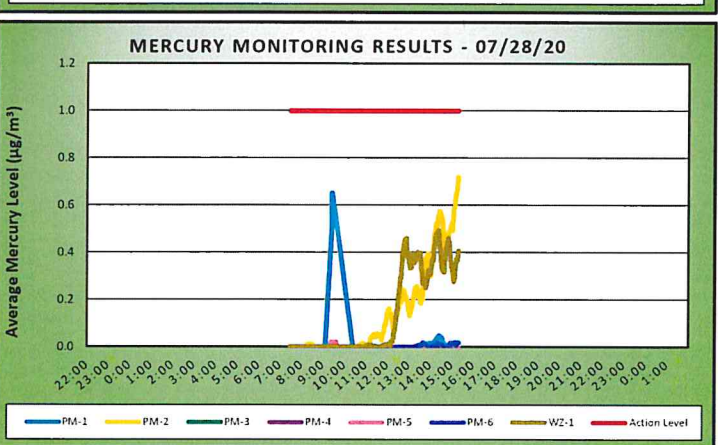
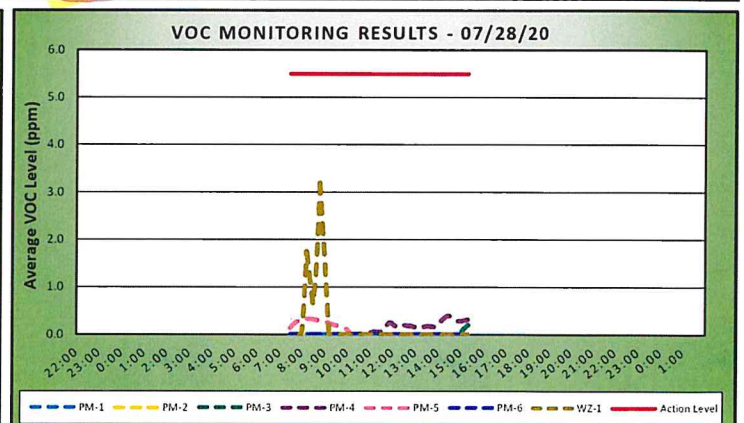
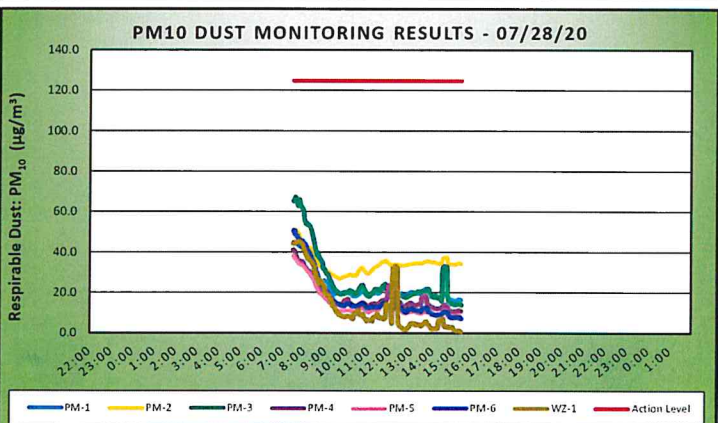
Manhattan, New York

07/28/20	
Project number: 170381202	
Page 1 of 2	Rev. No. 0
Submitted By:	
Dust Background & Action Level ($\mu\text{g}/\text{m}^3$)	25 125
VOC Background & Action Level (ppm)	0.5 5.5
Hg Background & Action Level ($\mu\text{g}/\text{m}^3$)	0.0 1.0

Weather Data Range for Work Day		Wind Direction	SE	Relative Humidity (%)	39.1 - 60.0	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported concentrations during work hours.
Temp (°F)	84.9 - 95.0	Wind Speed (MPH)	0.8 - 5.9	Barometer (inHg)	29.86 - 29.88			

Station Location Area	Work	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		22.9	45.0	7:28	0.0	0.0	7:27
PM-2		34.6	51.2	7:34	0.0	0.0	7:40
PM-3		26.6	67.1	7:33	0.0	0.2	15:18
PM-4		18.0	41.4	7:28	0.1	0.4	14:27
PM-5		14.7	38.3	7:28	0.1	0.3	8:16
PM-6		17.6	50.8	7:28	0.0	0.0	7:28
WZ-1		13.4	45.2	7:46	0.3	3.2	8:45

Station Location Area	Work	Daily Avg. Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.0	0.6	9:24
PM-2		0.2	0.7	15:17
PM-3		0.0	0.0	8:20
PM-4		0.0	0.0	7:28
PM-5		0.0	0.0	9:23
PM-6		0.0	0.0	15:08
WZ-1		0.1	0.5	14:21



Air Monitoring Notes:

Sampling Notes:

Weather Notes:



SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Monday, July 27, 2020	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Sunny, 80-97 °F Wind: SE @ 0.9 mph (10:29am) to S @ 6.4 mph (12:05pm)	
LOCATION: New York, NY		TIME: 6:00 am – 5:00 pm	
BCP SITE ID: C231127		LANGAN REP. : Ashley Stappenbeck Adrian Heath	
CONTRACTOR: AARCO Environmental Services Corp.		LANGAN REP. : Ashley Stappenbeck Adrian Heath	
EQUIPMENT: Geoprobe 7720 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 5 Ashley Stappenbeck, Adrian Heath, Giuliana Frizzi, Mimi Raygorodetsky – Langan Brian Ehalt – EXCEL Environmental Resources Nick Turro, Jose Romoro – AARCO Environmental Services Corp.		
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:			
<p>Langan initiated Phase 3 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 (Block 98, Lot 1).</p>			
Site Activities			
<ul style="list-style-type: none"> • AARCO used a Geoprobe 7720 DT drill rig with 4-foot-long Macro-Core® samplers to advance three soil borings to about 30 feet below grade surface (bgs). Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples. <ul style="list-style-type: none"> ○ Boring SB4R: No petroleum-like odors, staining, or elevated photoionization detector (PID) readings were observed. Visual evidence of elemental mercury was not identified. Mercury vapor concentrations above background were identified with a Jerome J405 or J505 unit at a maximum concentration of 6.63 micrograms per cubic meter (µg/m³) from 10 to 12 feet bgs. Total mercury concentrations detected with the Niton XL3t XRF (XRF) were identified at a maximum concentrations of 42 parts per million (ppm) from 2 to 4 feet bgs. ○ Boring SB4E1: No petroleum-like odors, staining, or elevated PID readings were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 2.48 µg/m³ was identified with a Jerome J405 or J505 unit from 2 to 4 feet bgs. Total mercury concentrations detected with the XRF were less than the limit of detection (LOD). ○ Boring SB4W1: No petroleum-like odors, staining, or elevated PID readings were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.15 µg/m³ was identified with a Jerome J405 or J505 unit from 0 to 2 feet bgs. Total mercury concentrations detected with the XRF were less than the LOD. • All soil borings were backfilled with drill cuttings from the borehole and then patched with cold patch asphalt after sampling was completed. 			
Material Tracking			
<ul style="list-style-type: none"> • No material was imported to the site. • No material was exported from the site. 			
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Adrian Heath	LANGAN	

SITE OBSERVATION REPORT

- No investigation derived waste (i.e. soil cutting or groundwater) was generated during site activities.

Sampling

- The following samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. 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 total mercury:
 - SB4R: 0-2, 2-4, 4-6, 6-8, 10-12, 14-16, and 18-20 feet bgs
 - SB4E1: 0-2, 2-4, 6-8, 10-12, 14-16, 16-18, and 18-20 feet bgs.
 - SB4W1: 0-2, 2-4, 4-6, 6-8, 8-10, 10-12, 12-14, 14-16, 16-18, and 18-20 feet bgs
- Two quality assurance/quality control soil sample (duplicate and matrix spike/matrix spike duplicate [MS/MSD]) were collected and submitted for analysis.
- Due to low soil recovery samples could not be collected in soil boring SB4R from 8 to 10, 12 to 14, and 16-18 feet bgs and in soil boring SB4E1 from 4 to 6, 8 to 10, and 12 to 14 feet bgs.
- The following samples were collected and relinquished to Eurofins, and were placed on hold pending total mercury results from 0 to 20 feet bgs:
 - SB4R: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
 - SB4E1: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
 - SB4W1: 20-22, 22-24, 24-26, 26-28, and 28-30 feet bgs
- Select samples will be additionally analyzed for mercury selective sequential extraction, pending total mercury results.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of particulate matter smaller than 10 microns in diameter (PM10) and volatile organic compounds (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/m³) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m³ for mercury vapor.

** Possible electrical short*

- An instantaneous mercury vapor reading of 20.6 µg/m³ occurred at the CAMP station PM1 at 13:40. The instantaneous reading caused the fifteen-minute average concentration to exceed the action level (readings are collected every minute). Work was stopped and the dedicated CAMP personnel used a handheld Jerome J505 to collect readings next to the PM1 station. The Jerome J505 air samples were non-detect. Instantaneous mercury vapor readings at the PM1 CAMP station from before and after the instantaneous spike were all below the detection limit. Mercury vapor was not observed in soil borings at concentrations approaching the elevated instantaneous mercury vapor concentration. The elevated reading may have resulted from interference or a power surge from the CAMP station battery.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.025	0.0	0.0
PM-2	0.036	0.0	0.0
PM-3	0.025	0.4	0.0
PM-4	0.019	0.3	0.0
PM-5	0.017	0.4	0.0
PM-6	0.021	0.0	0.0
WZ-1	0.011	0.0	0.1

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

Max 15 Minute Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.034	0.0	1.4
PM-2	0.041	0.2	0.1
PM-3	0.045	0.7	0.1
PM-4	0.036	0.4	0.0
PM-5	0.035	2.1	0.2
PM-6	0.037	0.3	0.1
WZ-1	0.031	0.7	0.4

** →*

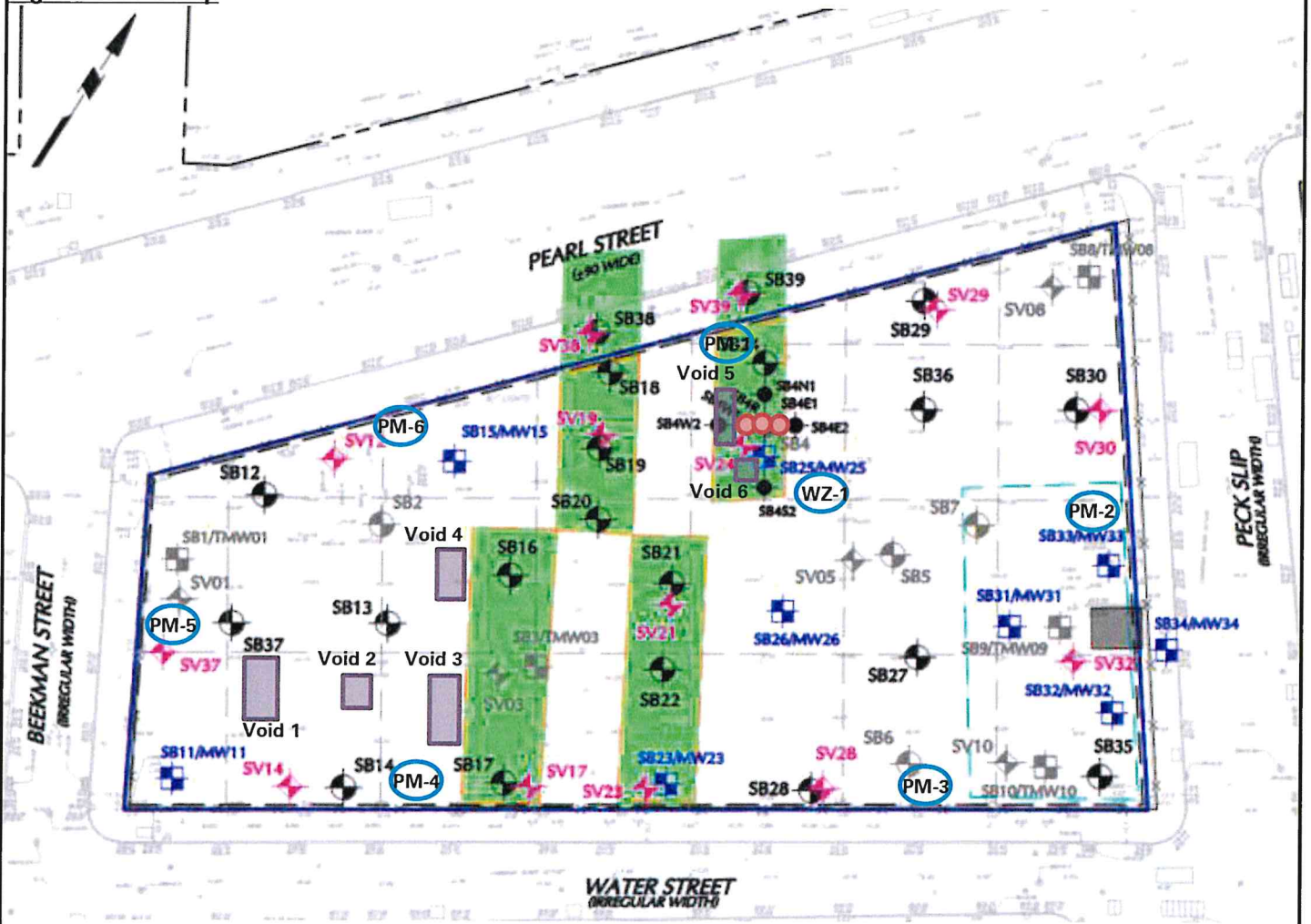
Anticipated Activities

- AARCO and Langan will continue to advance and sample delineation and site-wide soil borings, and install monitoring wells within the Phase 3 work area.







Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

-  Site Boundary
-  Approximate area of suspected void space
-  Approximate location of soil borings sampled
-  Approximate location of air monitoring station (on-site)
-  Approximate location of air monitoring station (off-site)
-  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.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath LANGAN
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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: AARCO advancing soil boring SB4W1 (facing southwest)



Photo 2: Langan collecting VOC readings from a soil boring (facing northeast)

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath

LANGAN

SITE OBSERVATION REPORT



Photo 3: Langan collecting mercury vapor readings from a soil boring (facing northeast)



Photo 4: Perimeter CAMP station PM-4 in the southern part of the site (facing south)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath LANGAN
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DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

Manhattan, New York

07/27/20

Project number: 170381202

Page 1 of 2

Submitted By:

Rev. No. 0

Dust Background & Action Level ($\mu\text{g}/\text{m}^3$) 25 125

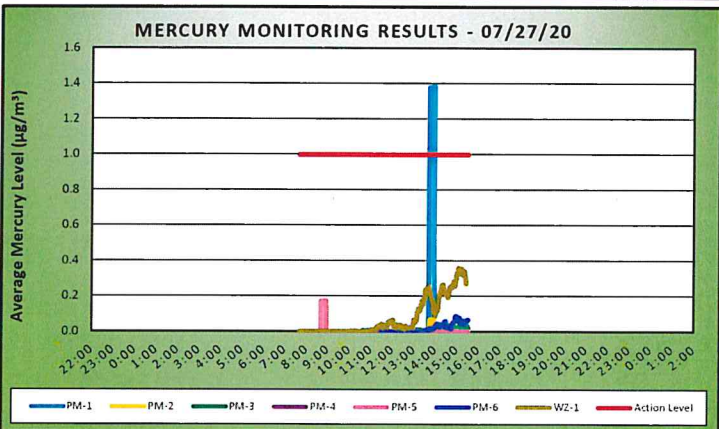
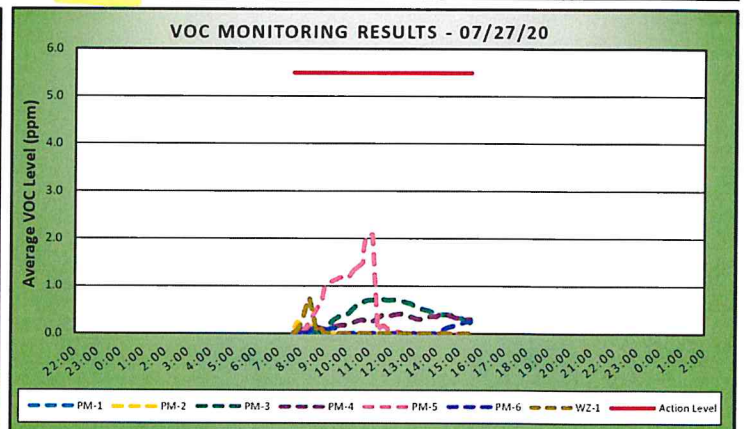
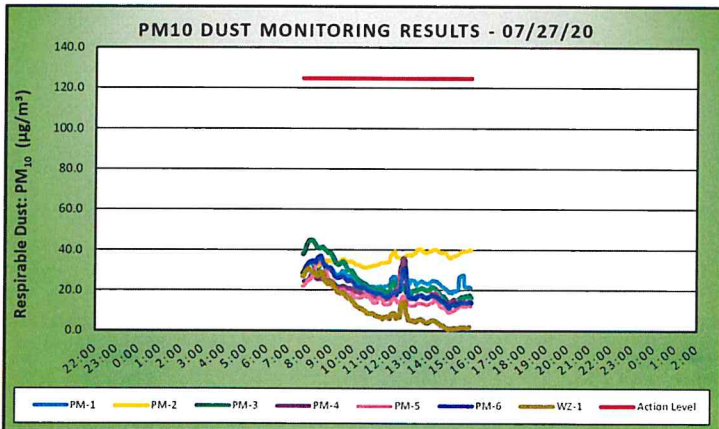
VOC Background & Action Level (ppm) 0.5 6.5

Hg Background & Action Level ($\mu\text{g}/\text{m}^3$) 0.0 1.0

Weather Data Range for Work Day		Wind Direction	S	Relative Humidity (%)	29.0 - 62.1	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported concentrations during work hours.
Temp (°F)	79.1 - 96.6	Wind Speed (MPH)	0.9 - 6.4	Barometer (inHg)	29.86 - 29.97			

Station Location Area	Work	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		25.1	33.8	12:25	0.0	0.0	8:44
PM-2		35.9	40.5	13:09	0.0	0.2	7:50
PM-3		25.1	44.9	8:00	0.4	0.7	11:23
PM-4		19.3	35.9	12:22	0.3	0.4	14:17
PM-5		17.1	34.5	8:32	0.4	2.1	11:01
PM-6		21.4	36.9	8:29	0.0	0.3	15:24
WZ-1		11.5	30.9	7:56	0.0	0.7	8:22

Station Location Area	Work	Daily Avg. Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.0	1.4	13:50
PM-2		0.0	0.1	13:42
PM-3		0.0	0.1	15:15
PM-4		0.0	0.0	7:48
PM-5		0.0	0.2	8:43
PM-6		0.0	0.1	14:56
WZ-1		0.1	0.4	15:04

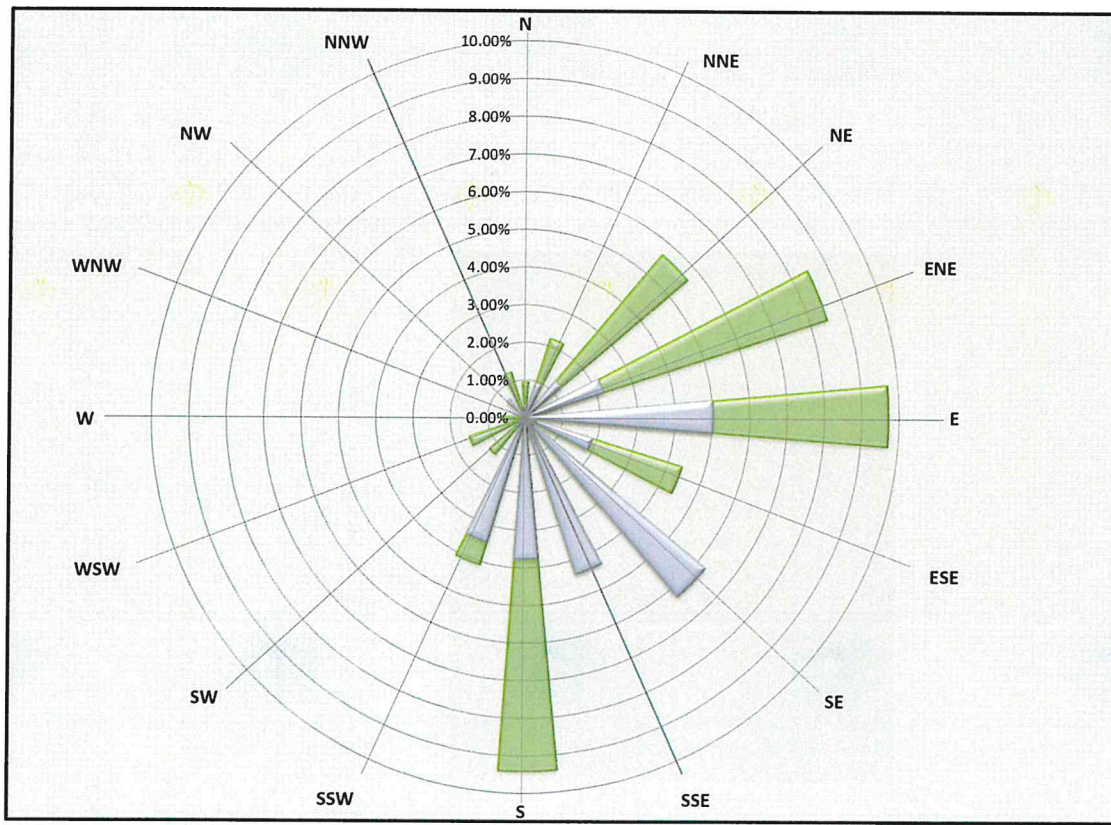


Air Monitoring Notes:

Sampling Notes:

Weather Notes:

Langan - 250 Water St Air
Monitoring
07/27/20
Wind Speed & Direction
Daily Readings



- > 10 MPH
- 8 - 10 MPH
- 6 - 8 MPH
- 4 - 6 MPH
- 2 - 4 MPH
- 1 - 2 MPH
- Calm

SITE OBSERVATION REPORT

PROJECT No.: 170381202 PROJECT: 250 Water Street LOCATION: New York, NY BCP SITE ID: C231127	CLIENT: 250 Seaport District, LLC	DATE: Thursday, July 9, 2020 Sunny, 76-88 °F WEATHER: Wind: SSE @ 1.1 mph (7:33am) to S @ 7.0 mph (5:45pm) TIME: 6:00 am – 7:35 pm
CONTRACTOR: AARCO Environmental Services Corp.		LANGAN REP. : Thomas Schiefer Adrian Heath
EQUIPMENT: Geoprobe 7720 DT Bosch RH540M Hammer Drill Jerome J505 and J405 MultiRAE MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 4 Thomas Schiefer, Adrian Heath – Langan Nick Turro, Jose Romoro – AARCO Environmental Services Corp.	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: <p>Langan continued implementing 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 (Block 98, Lot 1).</p> <p>Site Activities</p> <ul style="list-style-type: none"> AARCO used a Bosch RH540M Hammer Drill to install to soil vapor points in Voids 1 and 3. After installation and prior to sampling, the sample tubing was purged with a MultiRAE and mercury vapor readings were taken with a Jerome J505. <ul style="list-style-type: none"> Sub-slab soil vapor probe V1 (Void 1) was installed to about 1.5 feet bgs in Void 1. No PID readings above background were observed. A maximum mercury vapor concentration of 0.23 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was observed. Sub-slab soil vapor probe V3 (Void 3) was installed to about 1.5 feet bgs in Void 3. No PID readings or mercury vapor concentrations above background were observed. Sub-slab soil vapor probe V5 (Void 5) was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings above background were observed. A maximum mercury vapor concentration of 0.12 $\mu\text{g}/\text{m}^3$ was observed. AARCO used a Geoprobe 7720 DT drill rig with a closed point sampler to install nine soil vapor probes. After installation and prior to sampling, the sample tubing was purged with a MultiRAE and a mercury vapor reading was taken with a Jerome J505 <ul style="list-style-type: none"> Soil vapor probe SV12 was installed to about 8 feet bgs. No PID readings or mercury vapor concentrations above background were observed. Soil vapor probe SV14 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.55 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was observed. Soil vapor probe SV17 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.17 $\mu\text{g}/\text{m}^3$ was observed. 		
Cc: J. Yanowitz, P. McMahan, M. Raygorodetsky	By: Adrian Heath LANGAN	

SITE OBSERVATION REPORT

- Soil vapor probe SV23 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.23 $\mu\text{g}/\text{m}^3$ was observed.
- Soil vapor probe SV28 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.16 $\mu\text{g}/\text{m}^3$ was observed.
- Soil vapor probe SV29 was installed to about 8 feet bgs. No PID readings or mercury vapor concentrations above background were observed. No PID readings above background were observed. A maximum mercury vapor concentration of 0.08 $\mu\text{g}/\text{m}^3$ was observed.
- Soil vapor probe SV30 was installed to about 7 feet bgs. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor probe SV32 was installed to about 7 feet bgs. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor probe SV37 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 1.13 $\mu\text{g}/\text{m}^3$ was observed in the tubing after installation, prior to purging. After purging, and prior to sampling, no mercury vapor concentrations above background were observed.
- Soil vapor point SV19 was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor point SV21 was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings above background were observed. A maximum mercury vapor concentration of 0.31 $\mu\text{g}/\text{m}^3$ was observed.
- Soil vapor point SV24 was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings above background were observed. A maximum mercury vapor concentration of 0.10 $\mu\text{g}/\text{m}^3$ was observed.
- AARCO installed all soil vapor probes by backfilling with one foot of No.2 sand, followed by backfilling to grade with bentonite, before finishing the boring with a bentonite seal.
- All areas of intrusive work were 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

- The following samples were collected and relinquished to Alpha Analytical, Inc, a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Westborough, Massachusetts (ELAP No. 11148) for analyses proposed in the RIWP.
 - SV12, SV14, SV17, SV19, SV21, SV23, SV24, SV28, SV29, SV30, SV32, and SV37: Twelve, two-hour soil vapor samples were collected in 6-liter summa canisters and in sorbent tubes for analyses by Alpha Analytical, Inc. for volatile organic compounds (VOCs) by USEPA Method TO-15 and for mercury vapor by NIOSH Method 6009.
 - V1, V3, and V5: Three, two-hour void space soil vapor samples were collected in sorbent tubes for mercury vapor by NIOSH Method 6009.

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			LANGAN

SITE OBSERVATION REPORT

- o AA02: One ambient air sample was in a 6-liter summa canister and sorbent tube for analyses by Alpha Analytical, Inc. for VOCs by USEPA Method TO-15 and for mercury vapor by NIOSH Method 6009.
- o Quality Assurance/Quality Control (QA/QC): One, two-hour soil vapor duplicate was collected in a 6-liter summa canister and sorbent tube for analyses by Alpha Analytical, Inc. for VOCs by USEPA Method TO-15 (air canister) and for mercury vapor by NIOSH Method 6009. Additionally, one field blank was collected in a sorbent tube for analysis of mercury vapor by NIOSH Method 6009.

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SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), and volatile organic compounds (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/m³) for PM10, 0.5 parts per million (ppm) for VOCs, and 0.0 micrograms per cubic meter (µg/m³) for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.018	0.0	0.1
PM-2	0.035	0.0	0.0
PM-3	0.019	0.1	0.0
PM-4	0.013	0.0	0.2
PM-5	0.012	0.0	0.0
PM-6	0.013	0.3	0.0
WZ-1	0.008	0.0	0.0

mg/m³ = milligrams per cubic meter

ppm = parts per million

µg/m³ = micrograms per cubic meter

Max 15 Minute Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.029	0.0	0.4
PM-2	0.041	0.0	0.0
PM-3	0.038	0.5	0.0
PM-4	0.027	0.0	0.5
PM-5	0.025	0.0	0.0
PM-6	0.029	1.6	0.0
WZ-1	0.028	0.0	0.0

Anticipated Activities

- The results of the soil vapor sampling will be evaluated and interpreted alongside previously collected data and available information from historical maps and other data sources.
- No field work is scheduled at this time. Phase 3 of the RIWP (soil vapor sampling) is anticipated to be initiated during the week of July 27, 2020 after the results are evaluated, interpreted and shared

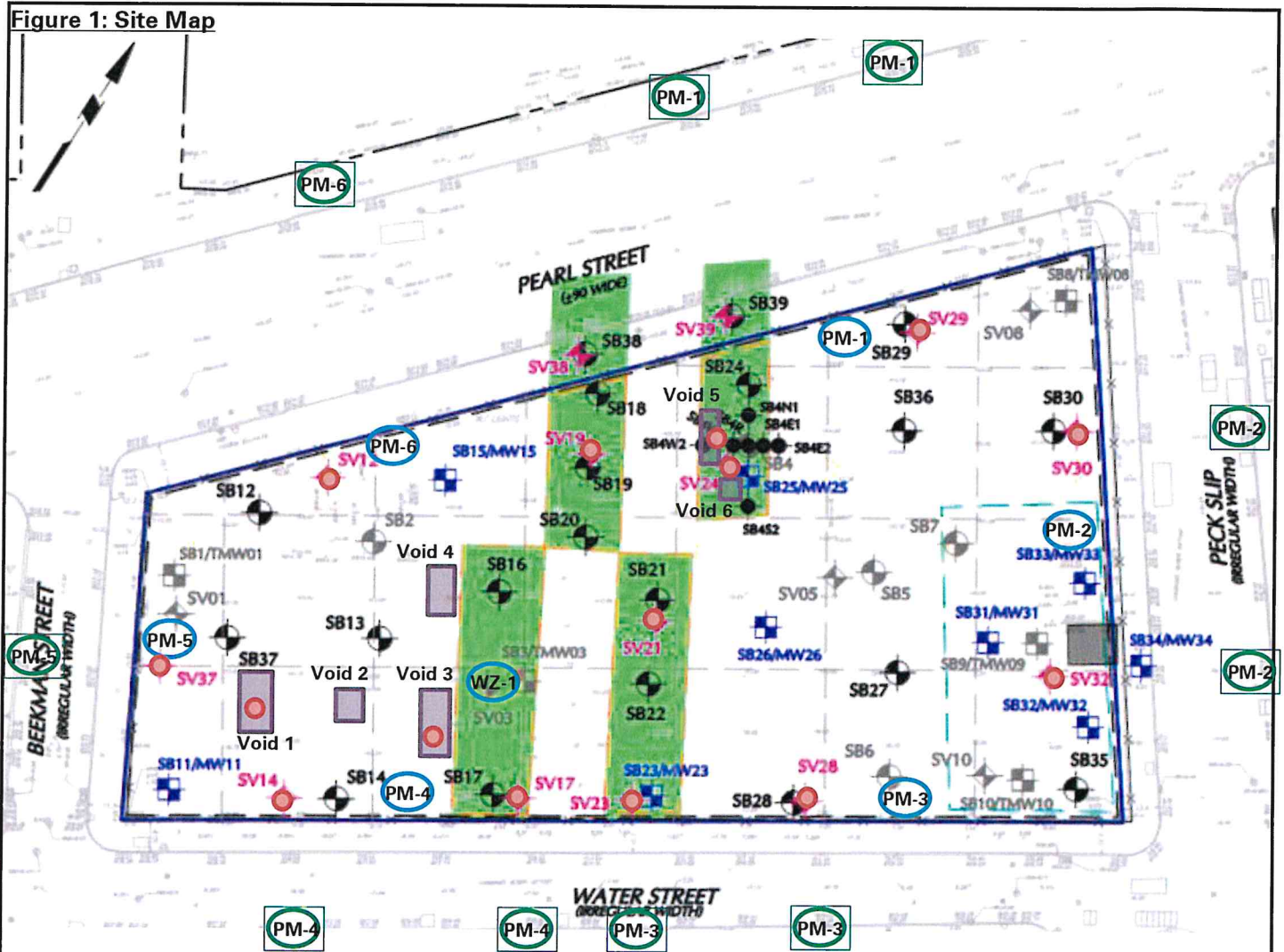
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath







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SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

-  Site Boundary
-  Approximate area of suspected void space
-  Approximate location of soil vapor probes installed and/or sampled today
-  Approximate location of air monitoring station (on-site)
-  Approximate location of air monitoring station (off-site)
-  Approximate locations of wok 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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By: Adrian Heath

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SITE OBSERVATION REPORT

Select Site Photographs:

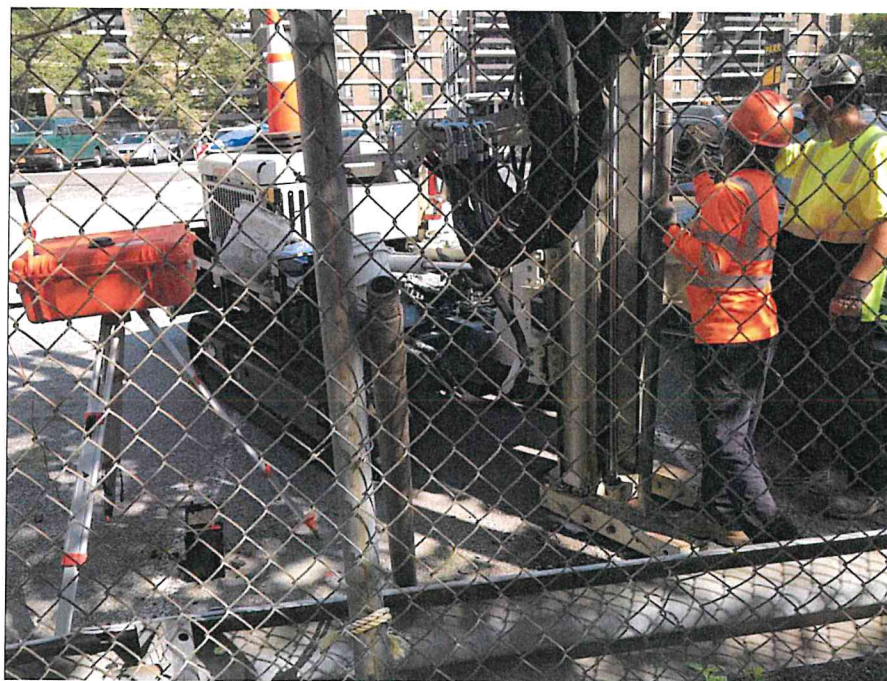


Photo 1: AARCO installing a soil vapor probe at SV-28 (facing north)

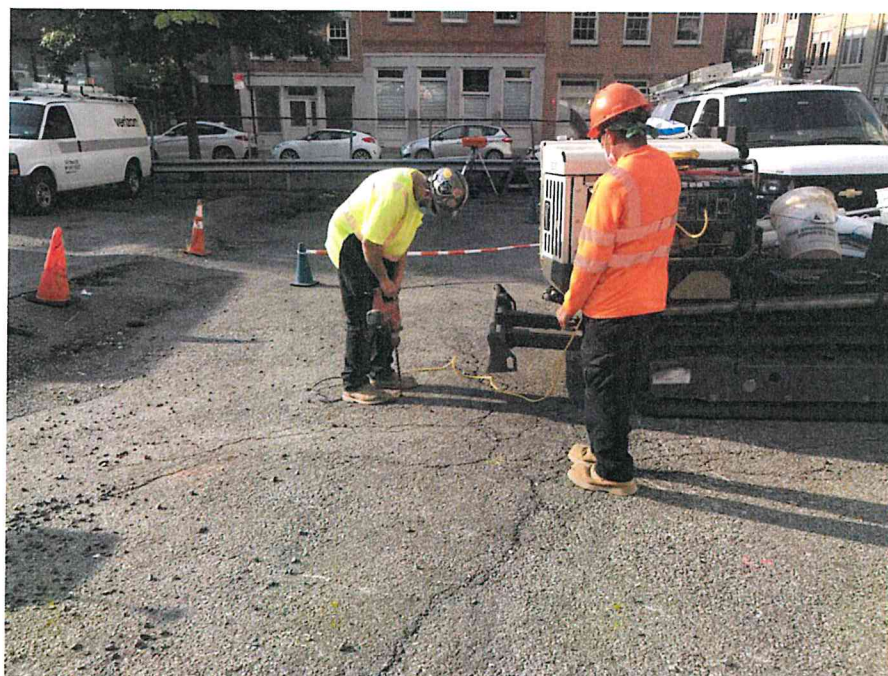


Photo 2: AARCO installing sub-slab vapor probe at Void 1 (facing south)

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SITE OBSERVATION REPORT



Photo 3: View of helium tracer test at SV-17

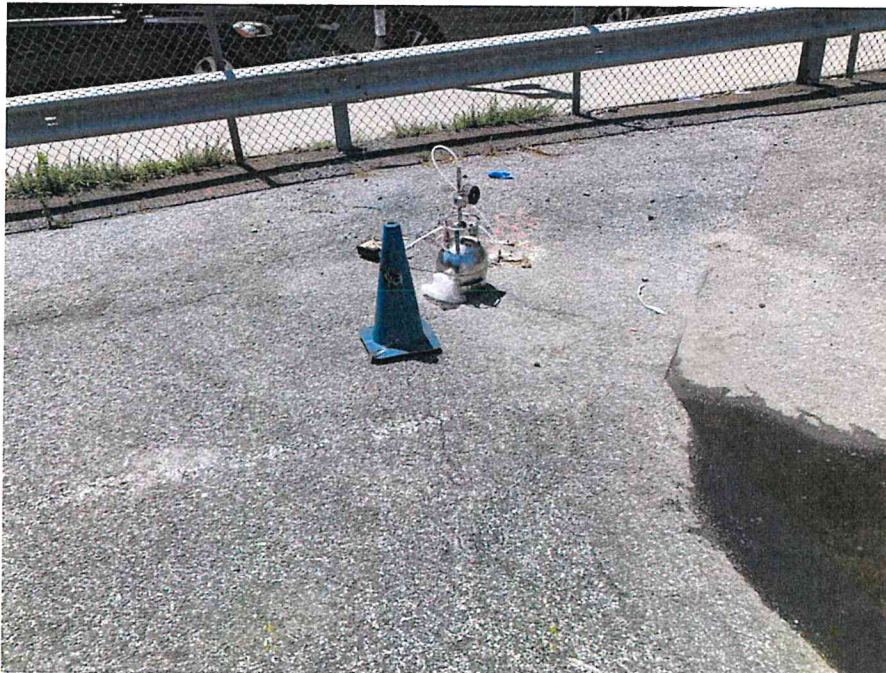


Photo 3: View of soil vapor sampling equipment at SV-37 (facing south)

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By: Adrian Heath

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DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

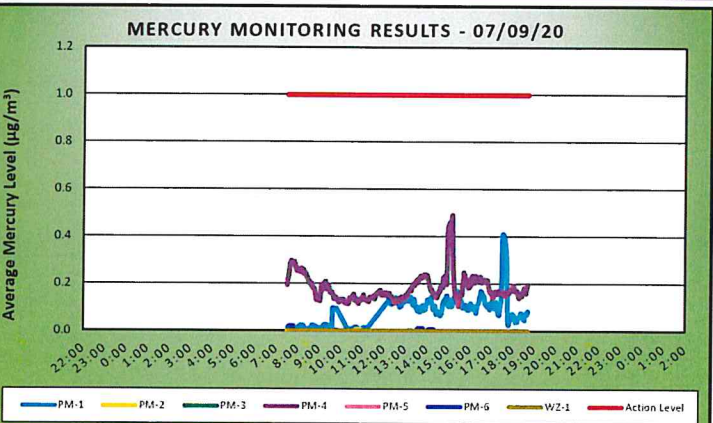
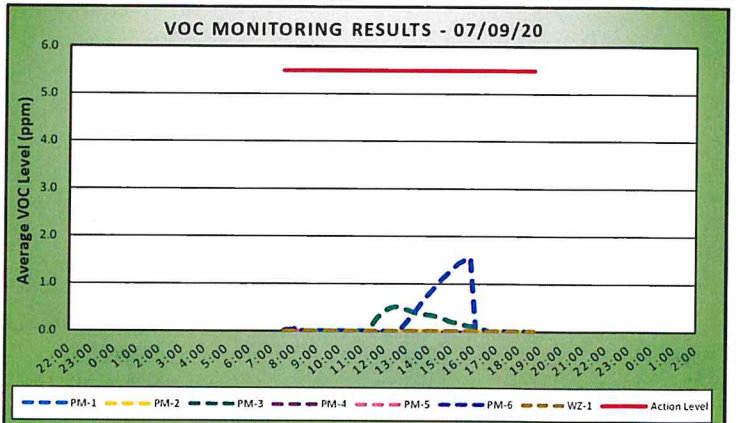
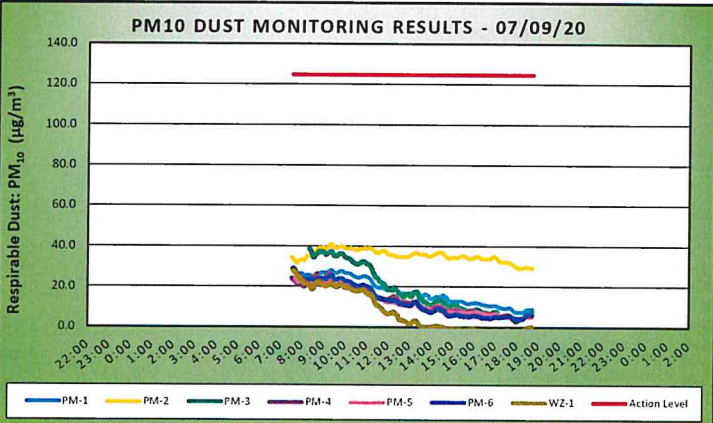
Manhattan, New York

07/09/20		
Project number: 170381202		
Page 1 of 2		Rev. No. 0
Submitted By:		
Dust Background & Action Level (µg/m ³)	25	125
VOC Background & Action Level (ppm)	0.5	5.5
Hg Background & Action Level (µg/m ³)	0.0	1.0

Weather Data Range for Work Day		Wind Direction	E	Relative Humidity (%)	43.9 - 83.1	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported concentrations during work hours.
Temp (°F)	76.6 - 88.7	Wind Speed (MPH)	1.1 - 7.0	Barometer (inHg)	30.05 - 30.10			

Station Location Area	Work	Daily Avg. Dust Concentration (µg/m ³)	Max 15 Minute Dust Concentration (µg/m ³)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		17.7	28.9	7:31	0.0	0.0	7:30
PM-2		35.4	41.1	9:20	0.0	0.0	7:30
PM-3		18.8	38.5	8:19	0.1	0.5	12:30
PM-4		13.2	26.5	9:12	0.0	0.0	7:30
PM-5		12.5	24.6	7:40	0.0	0.0	7:40
PM-6		13.0	29.1	7:34	0.3	1.6	15:49
WZ-1		7.6	28.0	7:34	0.0	0.0	7:34

Station Location Area	Work	Daily Avg. Mercury Concentration (µg/m ³)	Max 15 Minute Mercury Concentration (µg/m ³)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.1	0.4	17:30
PM-2		0.0	0.0	10:39
PM-3		0.0	0.0	13:04
PM-4		0.2	0.5	15:10
PM-5		0.0	0.0	7:41
PM-6		0.0	0.0	7:35
WZ-1		0.0	0.0	17:59



Air Monitoring Notes:

Sampling Notes:

Weather Notes:

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, July 8, 2020 WEATHER: Cloudy, 79-87 °F Wind: SSE @ 1.1 mph (10:33 am) to E @ 6.2 mph (12:28 pm) TIME: 6:45 am – 3:45 pm						
CONTRACTOR: AARCO Environmental Services Corp.		LANGAN REP. : Thomas Schiefer Adrian Heath Mimi Raygorodetsky						
EQUIPMENT: Geoprobe 7720 DT Bosch RH540M Hammer Drill Jerome J505 and J405 MultiRAE MiniRAE 3000 Dusttrak DRX	PRESENT AT SITE: RI Day 3 Thomas Schiefer, Adrian Heath, Mimi Raygorodetsky – Langan Nick Turro, Jose Romoro – AARCO Environmental Services Corp. Rick Lin – NYSDEC Brian Ehalt – EXCEL Environmental Resources Carey Wu – Emilcott Environmental							
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: Langan continued implementing 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 (Block 98, Lot 1). Site Activities <ul style="list-style-type: none"> • AARCO used a Bosch RH540M Hammer Drill to probe six suspected void spaces that were identified by the geophysical survey. <ul style="list-style-type: none"> ○ The top of the void spaces were encountered between 1 and 1.5 feet below grade surface (bgs). ○ Langan used a Jerome J505 and MultiRae unit to measure mercury vapor and total volatile organic compound (VOC) concentrations, respectively, within the void spaces. No VOC readings above background were identified in the void spaces. Mercury vapor concentrations are summarized below. <table border="0" style="width: 100%; margin-left: 20px;"> <tr> <td>▪ Void 1: 0.08 to 0.23 micrograms per cubic meter (µg/m³)</td> <td>▪ Void 4: 0.02 to 0.05 µg/m³</td> </tr> <tr> <td>▪ Void 2: 0.00 µg/m³</td> <td>▪ Void 5: 1.87 to 2.32 µg/m³</td> </tr> <tr> <td>▪ Void 3: 0.00 to 0.07 µg/m³</td> <td>▪ Void 6: 0.03 to 0.09 µg/m³</td> </tr> </table> <p>Based on these data, additional soil vapor probes will be installed in Voids 1, 3, and 5. See site map for void locations.</p> <ul style="list-style-type: none"> ○ Initial mercury vapor readings in Void 1 ranged from 0.5 to 0.7 µg/m³, but after evaluation with a separate J405 unit from the community monitor, and ambient monitoring with the J505, it became clear that the J505 required recalibration/flushing. The Void Space 1 readings above reflect readings after recalibration. <ul style="list-style-type: none"> • AARCO used a Geoprobe 7720 DT drill rig with a closed point sampler to install the following soil vapor probes: <ul style="list-style-type: none"> ○ Sub-slab soil vapor probe V8 was installed to about 1.5 feet bgs in Void 5. No petroleum-like odors or elevated photoionization detector (PID) readings above background were observed. A maximum mercury vapor concentration of to 2.32 µg/m³ was observed. 			▪ Void 1: 0.08 to 0.23 micrograms per cubic meter (µg/m ³)	▪ Void 4: 0.02 to 0.05 µg/m ³	▪ Void 2: 0.00 µg/m ³	▪ Void 5: 1.87 to 2.32 µg/m ³	▪ Void 3: 0.00 to 0.07 µg/m ³	▪ Void 6: 0.03 to 0.09 µg/m ³
▪ Void 1: 0.08 to 0.23 micrograms per cubic meter (µg/m ³)	▪ Void 4: 0.02 to 0.05 µg/m ³							
▪ Void 2: 0.00 µg/m ³	▪ Void 5: 1.87 to 2.32 µg/m ³							
▪ Void 3: 0.00 to 0.07 µg/m ³	▪ Void 6: 0.03 to 0.09 µg/m ³							
Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By: Adrian Heath LANGAN						

SITE OBSERVATION REPORT

- Soil vapor probe SV19 was installed to about 7 feet bgs. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor probe SV21 was advanced to about 7 feet bgs. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor probe SV24 was advanced to about 7 feet bgs. No PID readings or mercury vapor concentrations above background were observed.
- AARCO installed all soil vapor probes by backfilling with one foot of No.2 sand, followed by backfilling to grade with bentonite, before finishing the boring with a bentonite seal.

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

- No samples were collected.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), and volatile organic compounds (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/m³) for PM10, 0.5 parts per million (ppm) for VOCs, and 0.0 micrograms per cubic meter (µg/m³) for mercury vapor.

- Intrusive work was performed between about 10AM and 3PM. Due to a connection issue at perimeter station PM6, air monitoring data was not recorded from PM6 during investigation of Voids 1, 2, 3, and 4. The work zone was monitored by the work zone air monitoring station, and the dedicated CAMP personnel during intrusive work, and no exceedances of action levels were observed. An elevated instantaneous mercury vapor reading of 5.05 µg/m³ occurred at a PM6 at 11:08 AM. No intrusive work was occurring at this time and the issue was investigated by the dedicated CAMP personnel. The dedicated CAMP personnel used a handheld Jerome J505 to collect mercury readings next to the PM6 station, and re-ran an air sample of the Jerome J405 that produced the elevated reading. Both air samples were non-detect. Langan determined the cause of the elevated reading to be a power surge from the unit or the telemetry system turning off and on. Due to a faulty battery connection, the Jerome J405 unit lost power and turned back on, causing initial elevated readings to be recorded when the unit turned back on. A representative from the equipment rental company was on site at 11:35, and repaired the connection. Intrusive work was not performed until the connection was repaired.

Daily Average Concentrations			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.023	0.0	0.0
PM-2	0.038	0.0	0.0
PM-3	0.031	0.2	0.1
PM-4	0.022	0.0	0.0
PM-5	0.016	0.0	0.0
PM-6	0.020	0.0	0.1
WZ-1	0.009	0.0	0.1

Max 15 Minute Average Concentration			
Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.035	0.0	0.1
PM-2	0.043	0.0	0.0
PM-3	0.052	0.5	0.2
PM-4	0.040	0.0	0.1
PM-5	0.024	0.0	0.0
PM-6	0.025	0.0	0.0
WZ-1	0.022	0.0	0.3

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			LANGAN

SITE OBSERVATION REPORT

Anticipated Activities

- AARCO will install the remaining on-site soil vapor probes.
- Langan will collect soil vapor samples from soil vapor probes installed for mercury vapor and VOCs.

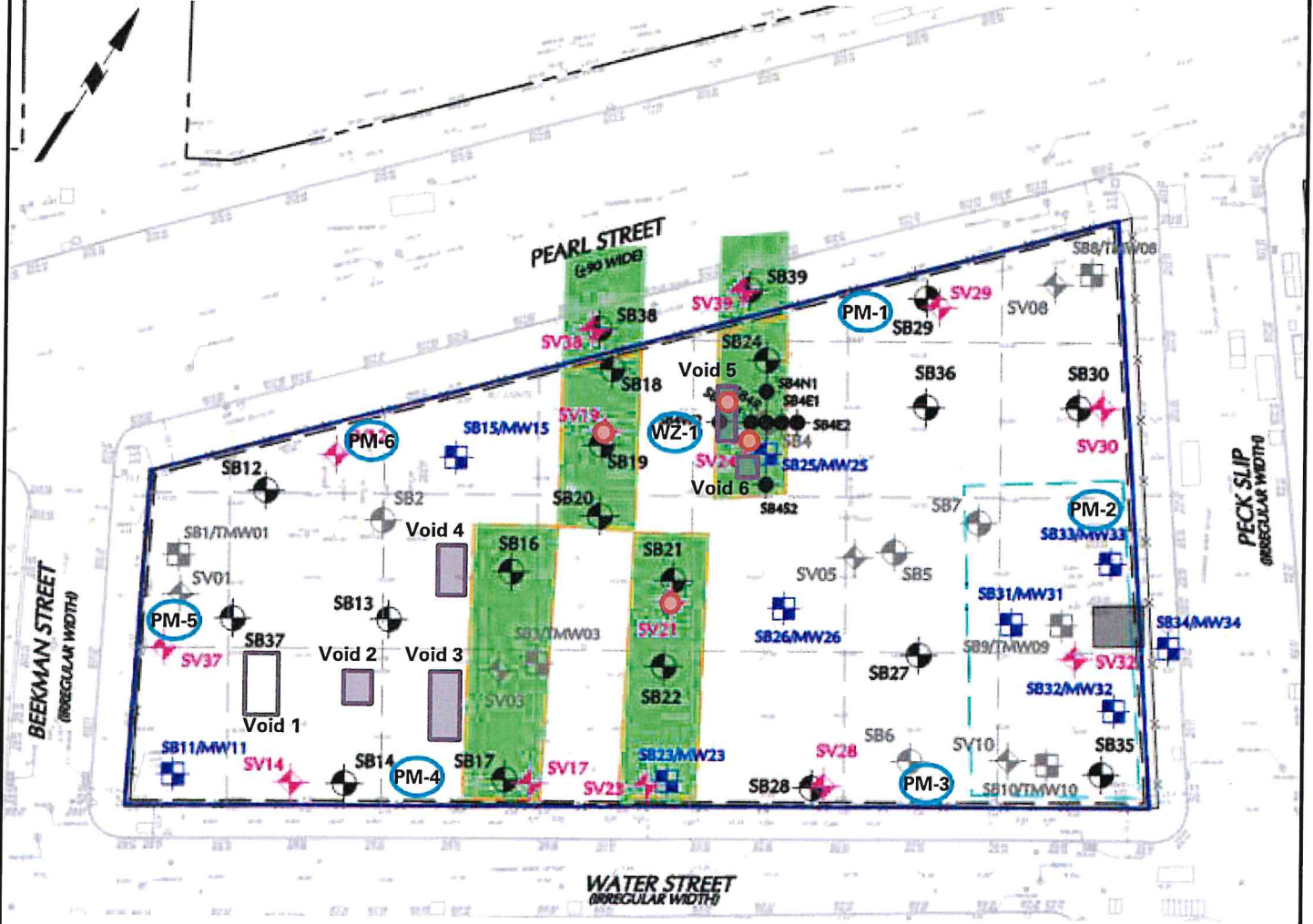
Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath






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SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

-  Site Boundary
-  Approximate area of suspected void space
-  Approximate location of soil vapor probes installed today
-  Approximate location of air monitoring station
-  Approximate location of wok zone air monitoring station

Notes:

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

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath

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SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: AARCO advancing a handheld hammer drill into a suspected void space (facing west)



Photo 2: AARCO installing sub-slab vapor probe at Void 5 (facing north)

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By: Adrian Heath

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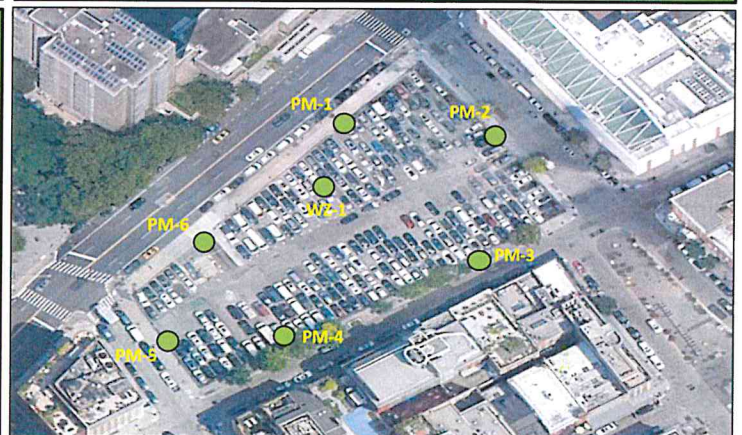
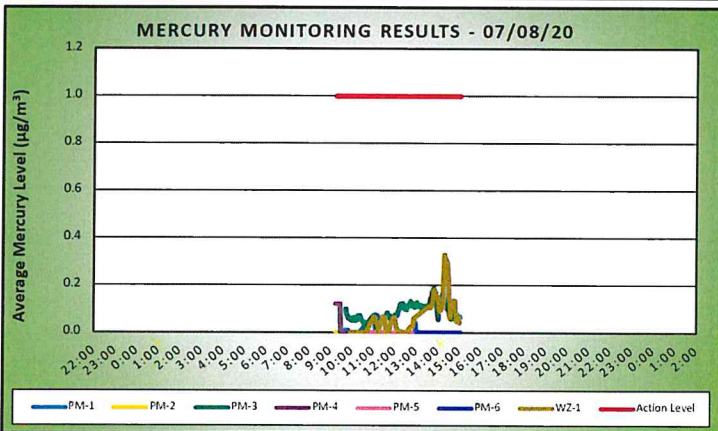
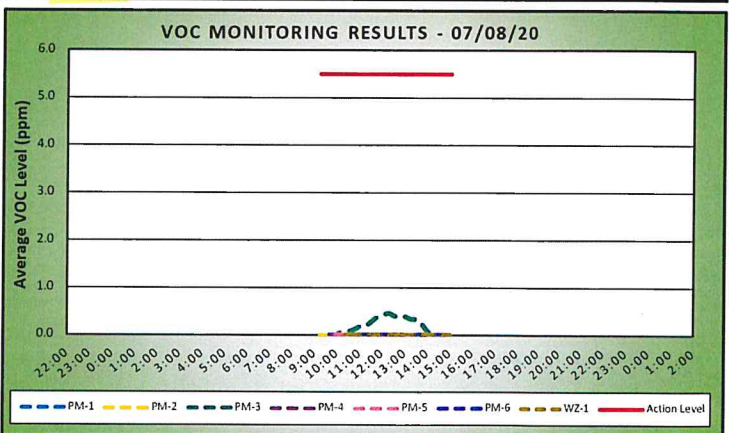
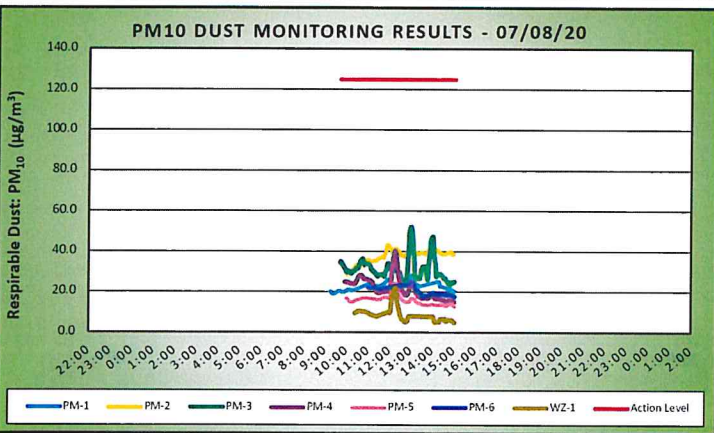
DAILY AIR MONITORING REPORT
250 Water Street Remediation Site
Manhattan, New York

07/08/20		
Project number: 170381202		
Page 1 of 2		Rev. No. 0
Submitted By:		
Dust Background & Action Level (µg/m ³)	25	125
VOC Background & Action Level (ppm)	0.5	5.5
Hg Background & Action Level (µg/m ³)	0.0	1.0

Weather Data Range for Work Day		Wind Direction	E	Relative Humidity (%)	55.2 - 72.4	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported concentrations during work hours.
Temp (°F)	79.1 - 87.0	Wind Speed (MPH)	1.1 - 6.2	Barometer (inHg)	30.06 - 30.11			

Station Location Area	Work	Daily Avg. Dust Concentration (µg/m ³)	Max 15 Minute Dust Concentration (µg/m ³)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		23.3	35.2	12:15	0.0	0.0	9:14
PM-2		37.7	43.2	11:54	0.0	0.0	9:14
PM-3		31.2	52.1	12:59	0.2	0.5	12:17
PM-4		21.6	40.3	12:15	0.0	0.0	9:46
PM-5		15.8	24.5	12:14	0.0	0.0	9:58
PM-6		20.2	25.2	13:01	0.0	0.0	10:59
WZ-1		8.8	21.9	12:15	0.0	0.0	10:23

Station Location Area	Work	Daily Avg. Mercury Concentration (µg/m ³)	Max 15 Minute Mercury Concentration (µg/m ³)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.0	0.1	11:02
PM-2		0.0	0.0	9:15
PM-3		0.1	0.2	13:48
PM-4		0.0	0.1	9:15
PM-5		0.0	0.0	9:59
PM-6		0.1	0.0	12:55
WZ-1		0.1	0.3	14:19

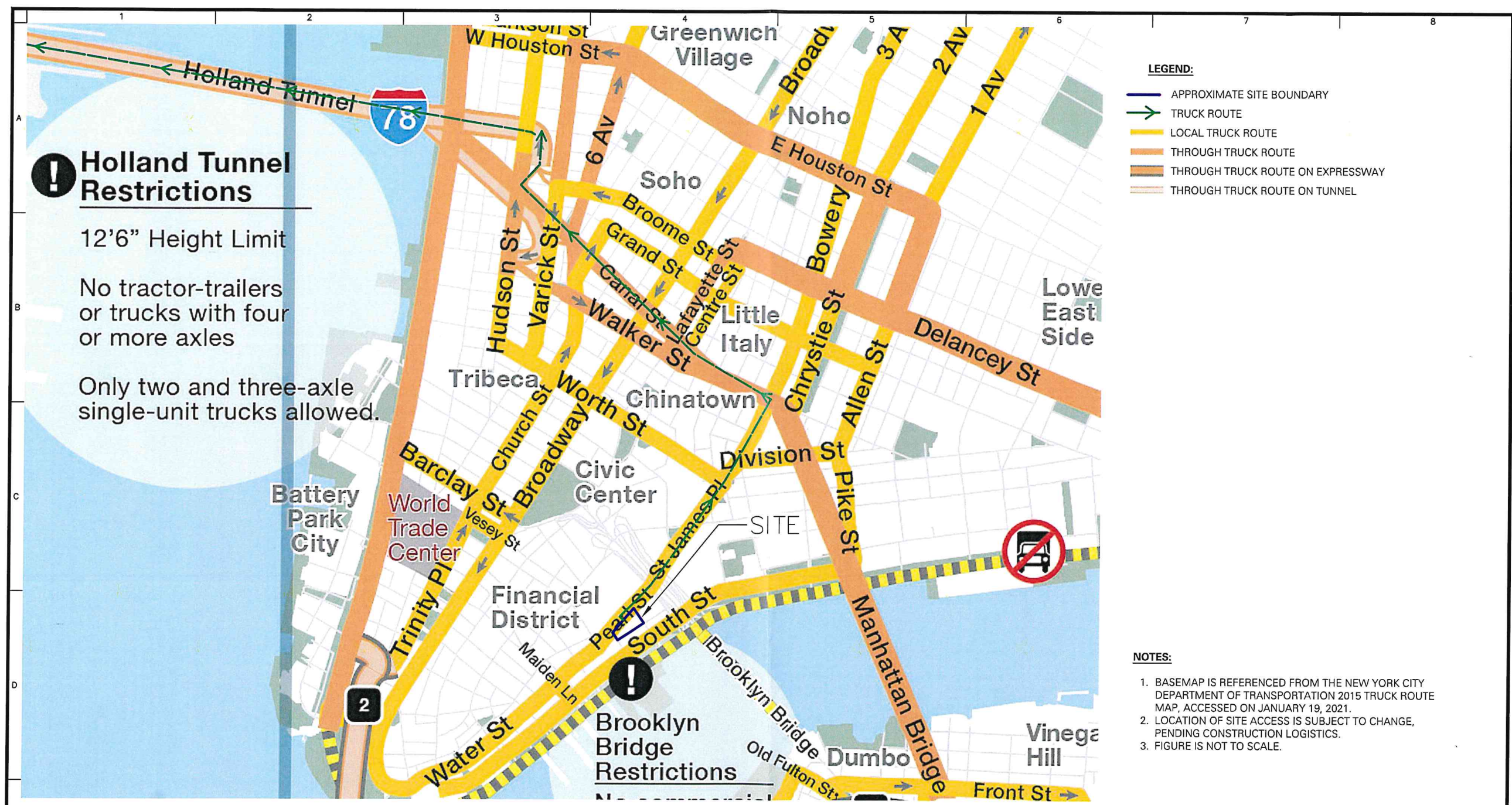


Air Monitoring Notes:

Sampling Notes:

Weather Notes:

Attachment B



Holland Tunnel Restrictions

- 12'6" Height Limit
- No tractor-trailers or trucks with four or more axles
- Only two and three-axle single-unit trucks allowed.

Brooklyn Bridge Restrictions

LEGEND:

- APPROXIMATE SITE BOUNDARY
- TRUCK ROUTE
- LOCAL TRUCK ROUTE
- THROUGH TRUCK ROUTE
- THROUGH TRUCK ROUTE ON EXPRESSWAY
- THROUGH TRUCK ROUTE ON TUNNEL

NOTES:

- BASEMAP IS REFERENCED FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION 2015 TRUCK ROUTE MAP. ACCESSED ON JANUARY 19, 2021.
- LOCATION OF SITE ACCESS IS SUBJECT TO CHANGE, PENDING CONSTRUCTION LOGISTICS.
- FIGURE IS NOT TO SCALE.

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

LANGAN Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com	Project 250 WATER STREET BLOCK No. 98, LOT No. 1 CITY NEW YORK	Drawing Title TRUCK ROUTE MAP	Project No. 170381202	Drawing No. 13
	Date 01/22/2021	Drawn By AS	Checked By PM	