SESI
CONSULTING ENGINEERS

# INTERIM REMEDIAL MEASURE CONSTRUCTION COMPLETION REPORT

**NYSDEC BCP No.: C360219**

**Hope Fire Engine Company Site**
**25 North Lexington Avenue**
**White Plains, New York 10601**

**Prepared for:**

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**Project No.:11814**

**AUGUST 2022/REVISED NOVEMBER 2022**

# CERTIFICATIONS

“I, Fuad Dahan, certify that I am currently a NYS registered professional engineer and that this Interim Remedial Measure Construction Completion Report Dated August 2022 was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

“I, Fuad Dahan, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Interim Remedial Measures Work plan dated October 2021 was implemented and that all construction activities were completed in substantial conformance with the Department-approved Interim Remedial Measures Work Plan.”

“I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.”

“I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.”

“I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class “A” misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Fuad Dahan, of SESI Consulting Engineers at 12A Maple Avenue, Pine Brook, NJ, am certifying as Owner’s Designated Site Representative for the site.”


| Fuad Dahan | 11/15/2022 | |
|---|---|---|
| NYS Professional Engineer (# 090531) | Date | Signature |

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

## TABLE OF CONTENTS


**LIST OF ACRONYMS ..... i**

**1.0 BACKROUND AND BROWNFIELD CLEANUP (BCP) SITE DESCRIPTION ..... 1**

**2.0 SUMMARY OF BCP SITE IRM ..... 2**

2.1 REMEDIAL ACTION OBJECTIVES FOR IRM ..... 2

2.2 DESCRIPTION OF IRM ..... 3

**3.0 INTERIM REMEDIAL MEASURES ..... 4**

3.1 GOVERNING DOCUMENTS ..... 4

3.1.1 SITE-SPECIFIC HEALTH AND SAFETY PLAN ..... 4

3.1.2 QUALITY ASSURANCE PROJECT PLAN ..... 4

3.1.3 STORM-WATER POLLUTION PREVENTION PLAN ..... 5

3.1.4 COMMUNITY AIR MONITORING PLAN ..... 5

3.1.5 CITIZENS PARTICIPATION PLAN ..... 5

3.2 REMEDIAL PROGRAM ELEMENTS ..... 5

3.2.1 CONTRACTORS AND CONSULTANTS ..... 5

3.2.2 BCP SITE PREPARATION ..... 6

3.2.3 GENERAL BCP SITE CONTROLS ..... 6

3.2.4 NUISANCE CONTROLS ..... 6

3.2.5 CAMP RESULTS ..... 7

3.2.6 REPORTING ..... 8

3.3 CONTAMINATED MATERIALS REMOVED ..... 8

3.3.1 SUPPORT OF EXCAVATION INSTALLATION ..... 8

3.3.2 SITE SOIL EXCAVATION ..... 8

3.3.3 WASTE DISPOSAL ..... 9

3.3.4 CONTAMINATION REMAINING AT THE SITE ..... 10

3.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING ..... 10

3.4.1 SOIL REMEDIAL END-POINT SAMPLING ..... 10

3.4.2 MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING ..... 11

3.5 IMPORTED BACKFILL ..... 13

3.6 DATA USABILITY ..... 14

3.7 ELECTRONIC DATA DELIVERABLES ..... 21

**4.0 QUALITATIVE EXPOSURE ASSESSMENT ..... 22**

**TABLES**

TABLE 3.1 LIST OF CONTRACTORS AND CONSULTANTS (EMBEDDED)
TABLE 3.2 SUMMARY OF CAMP EXCEEDANCES (EMBEDDED)
TABLE 3.3 SUMMARY OF CONTAMINATED SOIL REMOVED FROM THE SITE (EMBEDDED)
TABLE 3.4 POST EXCAVATION END-POINT SAMPLE SUMMARY
TABLE 3.5 SUMMARY OF MONITORING WELL CONSTRUCTION AND SAMPLING (EMBEDDED)
TABLE 3.6 SUMMARY OF GROUNDWATER SAMPLE RESULTS
TABLE 3.7 SUMMARY OF POST-IRM EXCEEDANCES IN GROUNDWATER (EMBEDDED)
TABLE 3.8 SUMMARY OF IMPORTED BACKFILL (EMBEDDED)

**FIGURES**

FIGURE 1 SITE LOCATION MAP
FIGURE 2 SITE PLAN
FIGURE 3.1 SOIL EXCAVATION/ ENDPOINT SAMPLE PLAN
FIGURE 3.2 PRE-EXISTING ELEVATIONS SURVEY
FIGURE 3.3 GROUNDWATER SAMPLE LOCATIONS AND RESULTS
FIGURE 3.4 GROUNDWATER CONTOUR MAP

**APPENDICES**

APPENDIX A LOCAL PERMITS
APPENDIX B DEWATERING PROCESS AND TREATMENT PLANS
APPENDIX C CAMP MONITORING DATA
APPENDIX D REPORTS AND APPROVALS
APPENDIX E DISPOSAL FACILITIES APPROVAL LETTERS
APPENDIX F IRM PHOTOGRAPHIC LOG
APPENDIX G SOIL DISPOSAL MANIFESTS AND TRUCKING PERMITS
APPENDIX H POST EXCAVATION LABORATORY DATA
APPENDIX I MONITORING WELL CONSTRUCTION LOGS
APPENDIX J MONITORING WELL SAMPLING LOGS
APPENDIX K GROUNDWATER ANALYTICAL DATA
APPENDIX L SOIL IMPORT AND REUSE FORMS AND MATERIALS SCALE TICKETS
APPENDIX M DATA USABILITY SUMMARY REPORTS

## LIST OF ACRONYMS

| Acronym | Definition |
|---|---|
| BCA | Brownfield Cleanup Agreement |
| BCP | Brownfield Cleanup Program |
| CAMP | Community Air Monitoring Project |
| CPP | Citizen Participation Plan |
| DER | Division of Environmental Remediation |
| DER-10 | NYSDEC Technical Guidance for BCP Site Investigation and Remediation |
| DUSR | Data Usability Summary Report |
| ELAP | Environmental Laboratory Accreditation Program |
| ft-bgs | Feet Below Grade Surface |
| HASP | Health and Safety Plan |
| IRM | Interim Remedial Measure |
| IRM-CCR | Interim Remedial Measure Construction Completion Report |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| QAPP | Quality Assurance Project Plan |
| PCBs | Polychlorinated Biphenyls |
| PFAS | Per- and Polyfluoroalkyl Substances |
| PFOA | Perfluorooctanoic Acid |
| PFOS | Perfluorooctanesulfonic Acid |
| RAO | Remedial Action Objective |
| RIR | Remedial Investigation Report |
| SOE | Support of Excavation |
| SVOC | Semi-Volatile Organic Compounds |
| USCO | Unrestricted Use Soil Cleanup Objective |
| VOC | Volatile Organic Compound |

## 1.0 BACKROUND AND BROWNFIELD CLEANUP (BCP) SITE DESCRIPTION

GS White Plains Owner, LLC (the "Volunteer") entered into a Brownfield Cleanup Agreement (BCA) - Index No. C360219-11-21, Site No. C360219 - with the New York State Department of Environmental Conservation (NYSDEC) on December 7, 2021, to investigate and remediate an approximately 1.532 acres of real property known as the Hope Fire Engine Company Site [NYSDEC BCP Site # C360219 (the "Site")], located at 85 North Lexington Avenue, White Plains, Westchester County, New York. The Site was formerly made up of Lot 2 (50 Hamilton Avenue) and a portion of Lot 1 (85 No. Lexington Avenue). Those lots have since merged, making the Site one (1) lot, known as a Portion of Lot 2.1 with a new address of 25 North Lexington Avenue. The Volunteer submitted a BCA Amendment application on August 30, 2022 removing a 0.0683-acre portion of the Site because it is an existing city street/sidewalk. Therefore, the Site is now 1.4632 acres. The Site is depicted on a United States Geological Survey (USGS) Topographic Map (**Figure 1 Site Location Map).**

Historically, prior to 1950, the Site was utilized as a lumber and storage yard, a freight house with railroad transport access, a fire department, a builder supply storage facility and a wholesale feed supply and grinding company. Railroad operations continued on Lot 1 until the mid-1960s, when the Site was taken over by urban renewal agencies and the structures on the railroad portion of the lot were razed and a parking lot was constructed. The Lot 2 portion of the Site was occupied by two (2) service stations from the 1930s through 1960s. The Lot 2 portion of the Site was partially redeveloped into a parking lot in 1995 and fully redeveloped into the current parking lot sometime around 2006.

SESI Consulting Engineers DPC (SESI), has prepared this Interim Remedial Measure Construction Completion Report (IRM-CCR) to summarizes the interim remedial measures (IRM) for the Site conducted between January 10, 2022 and August 2, 2022. The IRM was conducted in accordance with the Remedial Investigation/Interim Remedial Measure Work Plan (RI-IRMWP) dated October 2021, which was approved by the NYSDEC on December 7, 2021. The IRM involved Site preparation activities including removal of and off-site disposal of existing structures (a parking kiosk and a canopy, light poles, surface concrete curbing and sidewalks, and asphalt), installation of a perimeter fence, construction of a tracking pad and equipment staging areas, installation of support of excavation (SOE) along the property boundary, mobilization and set-up of the dewatering system, excavation and off-site disposal of approximately 58,758.38 tons of contaminated soil exceeding the Unrestricted Use Soil Cleanup Objectives (USCOs), and collection and analysis of 133 end-point samples: 105 end-point bottom samples and 28 end-

points sidewall samples documenting achievement of the USCOs at the bottom of the excavation. In addition, six (6) post-IRM monitoring wells were installed and sampled.

Prior to IRM activities, SESI conducted a Remedial Investigation (RI) investigation in December 2021 for identification of contaminated soils, soil vapor, and groundwater that may be present at the Site. The RI was completed to determine the extent of soils exceeding the NYSDEC USCOs that were required to be remediated in accordance with the IRMWP and the NYSDEC's Technical Guidance for Site Investigation and Remediation (DER-10), and to evaluate the extent of soil vapor and groundwater impacts.

The investigation included conducting 20 soil borings, 10 test pits, eight (8) soil vapor samples, and sampling three (3) groundwater monitoring wells. During this work, 123 soil samples, eight (8) soil vapor, and three (3) groundwater samples were collected and submitted for laboratory analyses. The results of this investigation are summarized in the Remedial Investigation Report (RIR), Hope Fire Engine Company Site 50 Hamilton Avenue and p/o 85 North Lexington Avenue (f/k/a 40-82 Hamilton Avenue; t/b/a 25 Lexington Avenue), White Plains, New York 10601 BCP # C360219, dated July 2022. The investigation determined the remedial excavation depths of the soils exceeding the Track 1 USCOs that needed to be excavated. Required excavation depths extended to as much as 23.5 feet below grade surface (ft-bgs) and varied based upon contaminant depths determined during the remedial investigation work and the Site elevation. SESI's Remedial Investigation Report was first submitted to NYSDEC on July 27, 2022 and last revised on August 16, 2022.

## 2.0 SUMMARY OF BCP SITE IRM

The selected Track 1 soil remedy for the Site included excavation and removal of materials exceeding the USCOs across the entirety of the BCP Site area and was approved to be conducted as an IRM. Prior to the soil removal, Site preparation activities were conducted including installation of a perimeter fence, construction of a tracking pad and equipment staging areas, and the installation of an SOE along the building boundary, and mobilization and set-up of the dewatering system. The Site boundary/extent of the BCP Site area is shown on **Figure 2**.

## 2.1 REMEDIAL ACTION OBJECTIVES FOR IRM

Based on the results of the soil investigation, the following Remedial Action Objectives (RAOs) were identified for soils at this BCP Site.

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation and exposure to contaminants volatilizing from contaminated soil.
- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.
- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

## 2.2 DESCRIPTION OF IRM

IRMs at the Site were performed in substantial conformance with the NYSDEC-approved IRMWP for the Site. The following is a summary of the remedial actions performed to achieve the USCOs (Track 1) for soil:

1. **Site Preparation:** Removal of and off-site disposal of existing structures (parking kiosk and a canopy, light poles, surface concrete curbing and sidewalks, and asphalt), installation of a perimeter fence, and construction of a tracking pad and equipment staging areas.
2. **Support of Excavation:** Installation of a SOE system around the perimeter of the proposed building. The SOE served as the support for the excavation of the on-Site contaminated soil. All permits were obtained prior to the start of work and are included in **Appendix A**.
3. **Site Soils**: The soils exceeding USCOs were excavated and disposed of off-Site at appropriate facilities in accordance with Federal, State and local rules and regulations for handling, transport, and disposal as part of the IRM work**.** The end-point sampling at the bottom of the excavation achieved a USCO (Track 1) cleanup for soils by removing contaminated fill and soil at the Site within the property boundary. Remedial end-point confirmatory samples were collected at the base of each grid location to confirm

remaining soil concentrations do not exceed USCOs. Remedial end-point sampling results are discussed in Section 3.4.1**.**

4. **Groundwater:** Groundwater encountered during the excavation activities was dewatered in accordance with the dewatering plan provided in the IRMWP. Water encountered during construction was treated as contaminated water and was conveyed to the treatment system before discharge. Detail drawings on the dewatering process and treatment are included in **Appendix B**. The treatment system included settling tanks for sediment removal, bag filtration for further sediment removal, activated carbon adsorption for dissolved organics removal, and post-treatment discharge into the White Plains sanitary sewer system. A storage tank held the treated water to regulate the discharge flow rate in order not to exceed the allowable volume for daily discharge into the sewer system. Approximately 612,000 gallons of contaminated water was treated and discharged during the IRM. The Volunteer applied for and obtained permits from the Westchester County Department of Environmental Facilities in order to allow for this post-treatment discharge of groundwater into the sewer system. The permits were received and the treatment system analytical data are included in **Appendix B**. In addition, six (6) post-IRM monitoring wells were installed and sampled as discussed in Section 3.4.2.

A detailed description of these IRM activities is provided in the sections below.

## 3.0 INTERIM REMEDIAL MEASURES

## 3.1 GOVERNING DOCUMENTS

### 3.1.1 SITE-SPECIFIC HEALTH AND SAFETY PLAN

Remedial work performed under this IRM was in compliance with governmental requirements, including Site and worker safety requirements mandated by the Federal Occupational Safety and Health Organization. The requirements in the Health and Safety Plan (HASP) were followed for the remedial and invasive work performed at this Site. The HASP was included as Appendix F to the RI-IRMWP.

### 3.1.2 QUALITY ASSURANCE PROJECT PLAN

The Quality Assurance Project Plan (QAPP) was included as Appendix C of the RI-IRMWP and approved by the NYSDEC. The QAPP describes the specific policies, objectives, organization, functional activities, and quality assurance/quality control activities designed to achieve the project data quality objectives. The applicable work was performed in compliance with the

QAPP.

### 3.1.3 STORM-WATER POLLUTION PREVENTION PLAN

The erosion and sediment controls for the remedial construction activities were conducted in compliance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. A Soil Erosion and Sediment Control Plan prepared by JMC Engineering and approved by the City of White Plains, was implemented during construction activities.

### 3.1.4 COMMUNITY AIR MONITORING PLAN

The Community Air Monitoring Plan (CAMP) for the Site is included in Appendix G of the RI-IRMWP. The CAMP was implemented during on-Site intrusive activities to monitor the downwind Site property boundary. The implementation of the CAMP included the monitoring of particulates (dust) with a Dustrak, and volatile organic compounds (VOCs) using a photoionization detector. CAMP results are discussed in Section 3.2.5.

### 3.1.5 CITIZENS PARTICIPATION PLAN

The Citizens Participation Plan (CPP) provides members of the affected and interested public with information about the methods in which the NYSDEC will inform and involve the public during the investigation and remediation of the Site. To date, community participation procedures have been implemented in accordance with the CPP. Following submittal of this IRM-CCR, an Engineering Fact Sheet shall be submitted to the public outlining the results of the remedial action, which will fulfill the requirements of the CPP. A CPP for this site was provided As Appendix E of the RI-IRMWP.

## 3.2 REMEDIAL PROGRAM ELEMENTS

### 3.2.1 CONTRACTORS AND CONSULTANTS

**Table 3.1** below provides the list of contractors and consultants who performed the remedial activities on the BCP Site.

**Table 3.1 List of Contractors and Consultants**

| Contractors/Consultants | Role | Project Contact |
|---|---|---|
| SESI Consulting Engineers | Environmental Consultant and Engineer of Record | Fuad Dahan (Engineer of Record) |
| Steven Gustems | Environmental Consultant and Project Manager | Steven Gustems (Project Manager) |

| Contractors/Consultants | Role | Project Contact |
|---|---|---|
| Knauf Shaw | Environmental Counsel | Linda Shaw |
| LRC Construction | Site Construction Manager | Pasquale Lampugnale |
| ASF Construction, LLC | Installation of SOE and soil excavation and loadout | Angel Sanchez |
| Earth Efficient | Soil Disposal | Cory Weissglass |
| Alpha Analytical Laboratory | Analytical Laboratory | Mitchell Ostrowski |
| Phoenix Analytical Laboratory | Analytical Laboratory | Bobbi Aloisa |
| APL Laboratory | Analytical Laboratory | Alissa Ruccatano |

### 3.2.2 BCP SITE PREPARATION

Prior to implementation of the IRM, the following Site preparation activities were conducted:

**Summary of Activities**

1. Obtained Demolition Permits from the City of White Plains Department of Buildings. Copies of the permits are included in **Appendix A**.
2. Installed a Site fence for security during the abatement and demolition activities.
3. Installed a 20-foot-wide gate and Site perimeter chain link fencing for Site security.
4. The removal of light poles, shrubs, trees, curbs, and metal signs across the Site.
5. Importation of clean fill and aggregate and construction of tracking pad.
6. Identification of underground utilities.
7. Crushed and stockpiled concrete for off-site disposal.
8. Disposed of concrete to licensed disposal facilities.
9. Completed off-site disposal of ferrous and non-ferrous metals to a licensed recycling facility. And
10. Mobilization and set-up of the dewatering system.

### 3.2.3 GENERAL BCP SITE CONTROLS

The following general Site controls were established at the BCP Site to minimize off-Site and on-Site impacts of remedial activities:

- The Site was a closed Site accessible only to Site contractors, owners, and authorized entrants. A security fence with gates was installed at the Site during remedial activities.
- The gates to the BCP Site were locked when construction personnel were not present.

### 3.2.4 NUISANCE CONTROLS

The following monitoring and controls were performed on the BCP Site during the fill import

and placement:

- Truck wash and egress housekeeping: One (1) rip-rap truck-tire wash station was installed at the entrance of the construction area. Prior to the trucks leaving the Site, the tires were washed on the wash station in order to minimize soil tracking off-Site.
- Dust control: The Site was sprayed with water, when needed, to minimize dust generation during Site work and loading of trucks.

### 3.2.5 CAMP RESULTS

Two (2) dust monitors were installed at two (2) locations to monitor the up-wind and down-wind dust concentrations during construction activities at the Site. The monitoring locations were changed as needed to account for changes in wind direction. Exceedances occurred during excavation and trucking activities and were mitigated by spraying water to suppress visible dust. No exceedances of VOCs were recorded during the performance of CAMP. No dust, odor, or noise complaints were received during IRM activities. CAMP exceedances are summarized on **Table 3.2** below. Raw CAMP data is provided in electronic format in **Appendix C**.

**Table 3.2: Summary of CAMP Exceedances**

| Date | Location (Upwind/Downwind) | Construction Activity | Visual Observations | Exceedance of Action level (Y/N) | Action Taken for Dust Control |
|---|---|---|---|---|---|
| 2/1/2022 | Downwind | Sidewalk removal | No Dust | Y | Recalibrated machine and moved from snow area |
| 4/6/2022 | Downwind | Truck exporting | None seen | Y | Troubleshot issues with equipment renter and restarted |
| 4/15/2022 | Upwind | None | Dust generation from employee using leaf blower | Y | Ceased leaf blowing. |
| 4/23/2022 | Upwind | Sawing concrete slab | Concrete Dust generation | Y | Positioned AMS-2 12 feet away from concrete cutting to address close proximity. |

### 3.2.6 REPORTING

SESI submitted daily reports to the NYSDEC for field activities from January 10, 2022 to April 23, 2022. SESI submitted weekly reports to the NYSDEC for field activities from April 25, 2022 to August 2, 2022. Electronic copies of the daily reports are included in **Appendix D**. Raw CAMP data was also sent to the New York State Department of Health (NYSDOH) and NYSDEC on a weekly basis. Photos to document the progress of the work were taken regularly during the remedial activities and are included as part of the daily reports, as is notification of any CAMP exceedances from the previous day.

## 3.3 CONTAMINATED MATERIALS REMOVED

### 3.3.1 SUPPORT OF EXCAVATION INSTALLATION

The SOE installation activities began at the Site on February 7, 2022. This system consists of interlocking steel sheet piles driven into the ground from the existing grade. The system also includes the installation of soil tie-backs on specified intervals located along two (2) sides of the Site. The As-Built survey of the SOE is attached as **Figure 3.1**.

### 3.3.2 SITE SOIL EXCAVATION

The Site soils required remediation due to concentrations of SVOCs, pesticides, metals and polychlorinated biphenyls (PCBs), in exceedance of USCOs. Soil contamination was identified in the soils at depths up to 25 ft-bgs. To remediate the contaminated soil, SOE sheet piles were installed around the boundary of the Site for structural stability of the excavation and to prevent impact to off-site structures.

For soil disposal and excavation organization purposes the Site was subdivided in 24 grids. As part of the RIR, waste characterization samples were collected at a frequency of one (1) composite per 750 cubic yards of soils based on site grid of 50-foot wide by 50-foot long and 7 foot deep. In addition, to the waste characterization samples, grab samples were collected during the RIR at 5 ft-bgs depth intervals. The waste characterization sample results and site grids were provided in Appendix E of the RIR. The results of the waste characterization were sent to Earth Efficient for pre-approval prior to shipping. Facility approvals are provided in **Appendix E**.

The contaminated fill and soil were removed from the entire footprint of the Site down to depths extending to 25 ft bgs across the Site as shown in survey **Figure 3.2**. Post-excavation confirmatory samples were collected from the bottom on a 900 square foot grid basis and from

the sidewalls every 30 linear feet, when applicable as discussed in Section 3.4 below. The excavation continued in each grid/cell until the USCO were achieved. Photographic documentation of the progress of the excavation from beginning to end was provided to the Department via weekly reports, copies of which are included in **Appendix D**. Photographic documentation of the completion of excavation to the bedrock surface is provided in **Appendix F**.

In total, 58,758.38 tons of contaminated soil were removed from the Site as presented in **Table 3.2** and described in Section 3.6. The soil remediation including excavation and off-site disposal was completed on August 2, 2022. Soil disposal manifest and part 364 trucking permits are provided in **Appendix G.**

Maps of the sample locations and elevations and of the pre-existing grade condition are included in **Figures 3.1** and **3.2**.

### 3.3.3 WASTE DISPOSAL

From April 2022 to August 2, 2022 a total of 58,758.38 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal. A total of 381.36 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal at Bayshore Recycling Corp. of Keasby, New Jersey; 3,598.07 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal at Clean Earth of Bethlehem, Bethlehem, Pennsylvania; 27 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal at Brook Brothers, Carlstadt, New Jersey; 13,254.12 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal at Earth Efficient Harmony Belvidere Road of Phillipsburg, New Jersey; 15,344.33 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal at Earth Efficient Harmony Foul Rift of Belvidere, New Jersey; 6,568.24 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal at Middlesex County Utilities Landfill of East Brunswick, New Jersey; and finally 19,585.26 tons of non-hazardous contaminated soil was excavated and removed from the Site for off-site disposal at Bergen County Overpeck Park Landfill Area IV of Palisades Park, New Jersey. The soil remediation was completed on August 2, 2022. **Table 3.3** below shows the total quantities of each category of material removed from the site and the disposal locations.

**Table 3.3 Summary of Contaminated Soil Removed from the Site**

| Date | Description | Facility | Quantity (tons) |
|---|---|---|---|
| April 2022 | Excavated Nonhazardous soil | Bayshore | 381.36 |
| March- July 2022 | Excavated Nonhazardous soil | Bethlehem Earth | 3598.07 |
| April 2022 | Excavated Nonhazardous soil | Brook Brothers | 27 |
| July 2022 | Excavated Nonhazardous soil | Earth Efficient HBR | 13254.12 |
| March 2022 | Excavated Nonhazardous soil | Earth Efficient HFR | 15344.33 |
| March 2022 | Excavated Nonhazardous soil | MCUA--Middlesex County | 6568.24 |
| March-August 22 | Excavated Nonhazardous soil | Overpeck | 19585.26 |
| | | Total | 58,758.38 |

Soil disposal manifests, Part 364 permits of the trucks, and bills of lading are included in electronic format in **Appendix G** of this report.

### 3.3.4 CONTAMINATION REMAINING AT THE SITE

The Site remedy has achieved Track 1 unrestricted use for soil. All of the USCO soil exceedances have been excavated and removed from the Site; therefore, there are no remaining exceedances in soil and a Track 1 remedy has been achieved.

## 3.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

### 3.4.1 SOIL REMEDIAL END-POINT SAMPLING

The Site was subdivided in 30 x 30-foot grids for post excavation sampling based on one (1) bottom post-excavation sample per 900 square feet in accordance with DER-10. The excavation continued in each grid/cell until the end-point confirmatory sample complied with the USCOs. In total, 133 end-point samples were collected. Specifically, 64 end-point bottom samples and 28 end-points sidewall samples were collected within the SOE boundary, and 41 end-point samples were collected outside the SOE boundary. The sample locations are shown on **Figure 3.1**.

Post-excavation samples were analyzed for target compound list VOCs, SVOCs, pesticides, and target analyte list metals in accordance with EPA Methods 8260, 8270, 8081, and 6010/7471, respectively. The samples were submitted to Alpha Analytical (Alpha) Phoenix Analytical, and APL laboratories, NYSDOH Environmental Laboratory Accreditation Program (ELAP) certified laboratories, and the results were reported in accordance with NYSDEC requirements for Category B data deliverables. Field blanks, trip blanks and duplicate samples

associated with sampling activities were collected as a part of the accordance with the QAPP included as Appendix C of the RI-IRMWP.

Sample results that identified exceedance of the USCOs were further excavated and resampled for analysis of compounds exceeding the USCOs. Certain end-point samples resulted in the minor exceedances of the USCOs, and with NYSDEC approval resampling was not required. These samples included RA-27 (indeno(1,2,3-cd)pyrene 0.52 mg/kg), RA-58 (benzo (b) fluoranthene 1.1 mg/kg), RA-70 (lead at 63.6 mg/kg), RA-75 (PCB 0.104 mg/kg), and RA-75C (lead 63.8 mg/kg). In addition, sample RA-11 (4,4-DDT 0.00551 mg/kg) resulted in an exceedance that is attributable to drop-in of non-native overburden soils due to the sloping of the excavation for safety. Therefore, resampling of this small cell was not required by NYSDEC. The post-excavation end-point sample data is summarized on **Table 3.4**. The post-excavation end-point sample laboratory data is provided in **Appendix H** of this report.

Based on the end-point sample results reported on **Table 3.4** and final sample elevations as reported in **Figure 3.1** the soil remedy has achieved a Track 1 unrestricted soil remedy because all soils exceeding the USCO have been excavated for off-site disposal.

### 3.4.2 MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING

Six (6) post-IRM monitoring wells were installed, RI-MW-1, RI-MW-2, RI-MW-3, RI-MW-4, RI-MW-6, and RI-MW-8, as shown on **Figure 3.3**. Shallow refusal was encountered at monitoring well MW-7 location. A well casing was installed; however, this well was dry and could not be sampled. Shallow refusal was also encountered at the location of proposed well MW-5 and therefore, no casing was installed. The depth of the wells ranged from approximately 6 to 18.5 ft- bgs. SESI installed six (6) 1-inch permanent wells composed of two (2) feet riser and 10 feet of well screen. The PVC screens were surrounded by clean well sand. The filter sand extends at least about two (2) feet above the screen. Bentonite about one (1) foot thick was then placed on top of the filter sand and the remaining annular space around the PVC riser was grouted with cement/bentonite mix. The wells were subsequently completed with protective steel manholes as flush mount. **Table 3.5** below presents a summary of monitoring wells installed and the groundwater sample analysis. The well construction logs in **Appendix I.**

**Table 3.5: Summary of Monitoring Well Construction and Sampling**

| Well ID | Installation Method | Total Depth | Screen length | Analysis |
|---|---|---|---|---|
| RI-MW-1 | Geoprobe | 15.6 | 10' (5.6-15.6) | TCL+30/TAL, PFAS, 1,4-Dioxane |
| RI-MW-2 | Geoprobe | 15.5 | 10' (5.5-15.5) | TCL+30/TAL, PFAS, 1,4-Dioxane |
| RI-MW-3 | Geoprobe | 13.55 | 10' (3.55-13.55) | TCL+30/TAL, PFAS, 1,4-Dioxane |
| RI-MW-4 | Geoprobe | 15.85 | 10' (5.85-15.85) | TCL+30/TAL, PFAS, 1,4-Dioxane |
| RI-MW-6 | Geoprobe | 17.2 | 10' (7.2-17.2) | TCL+30/TAL, PFAS, 1,4-Dioxane |
| RI-MW-7 | Geoprobe | 7 | 5' (2-7') | NA |
| RI-MW-8 | Geoprobe | 18.4 | 10'(8-18.4) | TCL+30/TAL, PFAS, 1,4-Dioxane |

On July 7, 2022 post-IRM groundwater samples were collected from six (6) monitoring wells full target compound list (TCL) and TAL analytes – which include VOCs (USEPA Method 8260), metals (USEPA Methods 6010/7471), SVOCs (USEPA Method 8270), PCBs and pesticides (USEPA Methods 8081/8082). In addition, samples were analyzed for per and polyfluoroalkyl substances (PFAS, USEPA Method 537), and 1,4-dioxane (USEPA Method 8270). Duplicate samples were collected in general accordance with frequencies specified in DER-10. Prior to sampling approximately three (3) well volumes were purged, and the purge water was piped to a "flow cell," where groundwater parameters including pH, redox potential, specific conductance, dissolved oxygen, salinity and turbidity were measured at three (3) minute intervals. Groundwater samples were collected once these parameters stabilized for three (3) consecutive readings. **Appendix J** includes the purge data for the groundwater monitoring wells. A summary of groundwater sampling results compared to the TOGS Ambient Water Quality Standards (AWQS) is presented on **Table 3.6**. The groundwater analytical data is presented in **Appendix K**.

A groundwater contour map was developed using well gauging and surveying data. As presented on **Figure 3.4**, groundwater flows in a southwesterly direction across the Site. Groundwater flow generally follows the Site topography.

As presented on **Table 3.7** and **Figure 3.3**, the metals iron, manganese, and magnesium were detected in post-IRM groundwater samples at concentrations exceeding the AWQS. In addition, the VOC chloroform was detected in wells MW-4 and MW-6 at concentrations of 8.21 ug/L and 8.98 ug/L, slightly exceeding the AWQS of 7 ug/L. Finally, PFOS and PFOA were detected at concentrations exceeding the draft AWQSs.

**Table 3.7 Summary of Post-IRM Exceedances in Groundwater**

| | Location | TOGS AWQS | RI-MW1-1 | | RI-MW2-1 | | RI-MW3-1 | | RI-MW4-1 | | RI-MW6-1 | | RI-MW8-1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Sampled: | | 07/11/2022 | | 07/11/2022 | | 07/13/2022 | | 07/13/2022 | | 07/13/2022 | | 07/13/2022 | |
| **Compound** | **Units** | | **Results** | **Q** | **Results** | **Q** | **Results** | **Q** | **Results** | **Q** | **Results** | **Q** | **Results** | **Q** |
| Perfluoroctanoic Acid (PFOA) | ng/L | 10 | **35.4** | | 10 | U | **22** | | **22.9** | | **11.3** | | **18.4** | |
| Perfluoroctanesulfonic Acid (PFOS) | ng/L | 10 | **14.2** | | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Iron | ug/L | 600 | 266 | | **695** | | 295 | | 398 | | 324 | | 200 | U |
| Magnesium | ug/L | 35000 | 26800 | | **48600** | | 34000 | | **70500** | | **58800** | | **50700** | |
| Manganese | ug/L | 600 | 107 | | 407 | | **777** | | 67.5 | | 433 | | **878** | |
| Chloroform | ug/L | 7 | 0.713 | J | 6.4 | | 0.365 | U | **8.21** | | **8.98** | | 1.52 | |

Notes:

ng/L = nanograms per liter
ug/L = micrograms per liter
Q = qualifier
U = compound not detected
J= estimated concentration
Bold = compounds detected
Highlighted cells indicate exceedance of the TOGS AWQS

## Conclusions – Groundwater Results

The Site's groundwater is impacted with very low concentrations of chloroform and secondary, naturally occurring metals (iron, magnesium, and manganese), as well as perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). It is not anticipated that these impacts will require remediation because the soil source has been removed. Since PFOS and PFOA were found in the groundwater, both before and after the IRM soil removal work, these low level exceedances of PFOS and PFOA in the groundwater do not appear to be present from prior fire department operations but rather are present in the area-wide groundwater since such levels have been found at other nearby White Plains BCP sites.

## 3.5 IMPORTED BACKFILL

The excavation was not backfilled but rather foundation construction commenced. Since all of the material below that was imported to the Site was quarry stone, gabion/rip rap stone or pea gravel from virgin quarries, no chemical analytical testing was performed. The material was used for backfilling the deeper excavations, construction of the tracking pad and other miscellaneous backfilling and grading for Site development. A total of 764.09 tons of materials were imported to the Site as listed below in **Table 3.8** below. The approved Soil Reuse/Import form and approval emails and material import scale tickets are included in **Appendix L**.

**Table 3.8 Summary of Imported Backfill**

| Date | Description | Source Facility | Quantity (Tons) |
|---|---|---|---|
| January and February 2022 | TPS | Thalle | 296.7 |
| February and March 2022 | 3/4" Quarry Stone | Thalle | 125.7 |
| March 2022 | 2”-4” Quarry stone | Thalle | 24.5 |
| April 2022 | 2.5" Quarry Stone | Thalle | 101.1 |
| March, April and July 2022 | 2-4" Stone | Thalle | 216.09 |
| | | Total: | 764.09 |

## 3.6 DATA USABILITY

To confirm the field sampling and laboratory analytical practices were acceptable, the data associated with the samples were validated by a third party (in accordance with requirements of DER-10), Hanibal Tayeh, PhD., a data validation and forensic geochemistry expert and NYSDEC approved data validator.

The validation approach and results are presented in the Data Usability Summary Report (DUSR), presented in **Appendix M**. The DUSR qualifiers have been included in the electronic data deliverable (EDD) submissions and the data tables.

The DUSR includes the soil excavation sample results. The DUSR was carried out as specified in DER-10 to evaluate the quality control measures that were implemented during the field and laboratory analytical programs, with the objective of determining whether the reported analytical data are representative and usable for decision making. The DUSR evaluated whether the data are technically defensible (i.e. were all analytical data requirements met and documented?). Data usability analysis reviews the Site data to determine whether they are adequate to draw conclusions regarding the nature and extent of contamination.

The items that were reviewed as part of the DUSR include the following:

- Completeness (number of samples collected and analyzed compared to plans)
- Chains of custody are complete and accurate
- Holding times
- Instrument calibration
- Relative percent difference between field duplicates
- Reasonableness of data (e.g. relationships between total and soluble analytes)
- Blank contamination

The DUSR for the soil, soil vapor, and groundwater samples analyzed showed that the overall performances of the analyses are acceptable and did fulfill the requirements of the analytical methods. The samples were analyzed within the USEPA SW-846 holding times. None of the analytical data changed based on the DUSR. Some issues were identified resulting in minor data qualifiers due to laboratory quality control outliners. Some notable issues for the contaminants of concern are described below.

SDG#2070546

- Detected results of target Aroclors in samples 2070546-01/RA-35 (22-22.5), 2070546-02/RA-48 (24-24.5), 2070546-03/Dup-20220712, 2070546-04/RA-36 (22.5-23), 2070546-05/RA-46 (23-23.5), 2070546-06/RA-46B (16.5-17), should be qualified Estimated Bias High (J+).
- Non-Detected results of, Barium, Copper, and Lead in samples 2070546-01/RA-35 (22-22.5), 2070546-02/RA-48 (24-24.5), 2070546-03/Dup-20220712, 2070546-04/RA-36 (22.5-23), 2070546-05/RA-46 (23-23.5), 2070546-06/RA-46B (16.5-17), should be qualified Estimated (UJ).
- Detected results of Mercury in samples 2070546-01/RA-35 (22-22.5), 2070546-02/RA-48 (24-24.5), 2070546-03/Dup-20220712, 2070546-04/RA-36 (22.5-23), 2070546-05/RA-46 (23-23.5), 2070546-06/RA-46B (16.5-17), should be qualified Estimated Bias Low (J-).
- Non-Detected results of Mercury in samples 2070546-01/RA-35 (22-22.5), 2070546-02/RA-48 (24-24.5), 2070546-03/Dup-20220712, 2070546-04/RA-36 (22.5-23), 2070546-05/RA-46 (23-23.5), 2070546-06/RA-46B (16.5-17), should be qualified Estimated (UJ).

SDG#2070841

- Detected results of Pesticide compound (4,4’-DDT), in sample 2070841-01/RA-11 (7.5-8), should be qualified Estimated Bias High (J+).
- Detected results of Pesticide compound (4,4’-DDT), in sample 2070841-02/RA-11 (8.5-9), should be qualified Estimated Bias Low (J-).
- Non-Detected results of Pesticide compound (4,4’-DDT), in sample 2070841-02/RA-11 (8.5-9), should be qualified Estimated (UJ).

SDG#2071061

- Detected results of 4,4'-DDT in samples 2071061-01/RA-55 (5.5-6), 2071061-02/RA-66 (7.5-8), should be qualified Estimated Bias Low (J-)
- Non-Detected results of 4,4'-DDT in samples 2071061-01/RA-55 (5.5-6), 2071061-02/RA-66 (7.5-8), should be qualified Estimated (UJ).

- Detected results of 4,4'-DDT in samples 2071061-01/RA-55 (5.5-6), 2071061-02/RA-66 (7.5-8), should be qualified Estimated Bias Low (J-)
- Non-Detected results of 4,4'-DDT in samples 2071061-01/RA-55 (5.5-6), 2071061-02/RA-66 (7.5-8), should be qualified Estimated (UJ)

SDG#2071108

- Detected results of 4,4'-DDT in sample 2071108-01/RA-77 (8-8.5), should be qualified Estimated Bias Low (J-).
- Non-Detected results of 4,4'-DDT in sample 2071108-01/RA-77 (8-8.5), should be qualified Estimated (UJ).
- Detected results of Dieldrin in sample 2071108-01/RA-77 (8-8.5), should be qualified Estimated Bias High (J+).

SDG#2071241

- Detected results of target SVOCs compounds in sample 2071241-01/RA-70 (5.5-6), should be qualified Estimated Bias High (J+).

SDG#2071363

- Detected results of 4,4'-DDT, in samples 2071363-01/RA-12 (6.5-7), 2071363-02/RA-23 (6.5-7), 2071363-03/DUP-20220728, should be qualified Estimated Bias Low (J-).

SDG#2209850

- Detected results of Total Lead, Zinc, in samples L2209850-01/RA-13 (5-5.5'), L2209850-02/RA-61 (4.5-5'), L2209850-03/RA-62 (4.5-5'), L2209850-04/RA-75 (8-8.5), L2209850-05/RA-64 (8-8.5'), L2209850-06/RA-2 (5-5.5), L2209850-07/RA-1 (5.5-6), L2209850-08/RA-12 (5.5-6), L2209850-09/RA-65A (11-11.5), L2209850-10/RA-65B (11-11.5), L2209850-11/RA-76A (12-12.5), should be qualified Estimated Bias Low (J-).
- Detected results of Total Barium, Chromium, Copper, Zinc, in samples L2209850-01/RA-13 (5-5.5'), L2209850-02/RA-61 (4.5-5'), L2209850-03/RA-62 (4.5-5'), L2209850-04/RA-75 (8-8.5), L2209850-05/RA-64 (8-8.5'), L2209850-06/RA-2 (5-5.5), L2209850-07/RA-1 (5.5-6), L2209850-08/RA-12 (5.5-6), L2209850-09/RA-65A (11-11.5), L2209850-10/RA-65B (11-11.5), L2209850-11/RA-76A (12-12.5), should be qualified Estimated (J).
- Detected results of Mercury in samples L2209850-01/RA-13 (5-5.5'), L2209850-02/RA-61 (4.5-5'), L2209850-03/RA-62 (4.5-5'), L2209850-04/RA-75 (8-8.5), L2209850-05/RA-64 (8-8.5'), L2209850-06/RA-2 (5-5.5), L2209850-07/RA-1 (5.5-6), L2209850-08/RA-12 (5.5-6), L2209850-09/RA-65A (11-11.5), L2209850-10/RA-65B (11-11.5), L2209850-11/RA-76A (12-12.5), should be qualified Estimated Bias High (J+).

SDG#2210130

- Detected results of Total Barium, Zinc, in samples L2210130-01/RA-65 (15-15.5'), L2210130-02/RA-76 (15-15.5'), L2210130-03/RA-63 (8-8.5'), L2210130-04/RA-63A (6-6.5'), L2210130-05/RA-51A (11-11.5'), L2210130-06/RA-50A (11-11.5'), should be qualified Estimated Bias Low (J-).
- Non-Detected results of Total Barium, Zinc, in samples L2210130-01/RA-65 (15-15.5'), L2210130-02/RA-76 (15-15.5'), L2210130-03/RA-63 (8-8.5'), L2210130-04/RA-63A (6-6.5'), L2210130-05/RA-51A (11-11.5'), L2210130-06/RA-50A (11-11.5'), should be qualified Estimated (UJ).
- Detected results of Mercury in samples L2210130-01/RA-65 (15-15.5'), L2210130-02/RA-76 (15-15.5'), L2210130-03/RA-63 (8-8.5'), L2210130-04/RA-63A (6-6.5'), L2210130-05/RA-51A (11-11.5'), L2210130-06/RA-50A (11-11.5'), should be qualified Estimated Bias Low (J-).
- Non-Detected results of Mercury in samples L2210130-01/RA-65 (15-15.5'), L2210130-02/RA-76 (15-15.5'), L2210130-03/RA-63 (8-8.5'), L2210130-04/RA-63A (6-6.5'), L2210130-05/RA-51A (11-11.5'), L2210130-06/RA-50A (11-11.5'), should be qualified Estimated (UJ).

SDG#2210313

- Detected results of Total Barium, Zinc in samples L2210313-01/RA-60 (8.0-8.5), L2210313-02/RA-60A (6.0-6.5), L2210313-03/RA-57 (3.5-4.0), should be qualified Estimated Bias Low (J-).
- Non-Detected results of Total Barium, Zinc, in samples L2210313-01/RA-60 (8.0-8.5), L2210313-02/RA-60A (6.0-6.5), L2210313-03/RA-57 (3.5-4.0), should be qualified Estimated (UJ).

SDG#2210313

- Detected results of Arsenic, Chromium, Copper, Lead, Zinc, in samples RA-32 (8.5-9), RA-43 (8-8.5'), RA-54 (8-8.5), RA-59 (8-8.5), RA-60B (6-6.5), RA-58 (4-4.5), RA-59A (6-6.5), RA-59B (6-6.5), DUP-1, should be qualified Estimated Bias-Low (J-).
- Non- Detected results of Chromium, Lead, Zinc, in samples RA-32 (8.5-9), RA-43 (8-8.5'), RA-54 (8-8.5), RA-59 (8-8.5), RA-60B (6-6.5), RA-58 (4-4.5), RA-59A (6-6.5), RA-59B (6-6.5), DUP-1, should be qualified Estimated (UJ).
- Non- Detected results of Copper in samples RA-32 (8.5-9), RA-43 (8-8.5'), RA-54 (8-8.5), RA-59 (8-8.5), RA-60B (6-6.5), RA-58 (4-4.5), RA-59A (6-6.5), RA-59B (6-6.5), DUP-1, should be qualified Unusable (R).

- Detected results of Copper in samples RA-32 (8.5-9), RA-43 (8-8.5'), RA-54 (8-8.5), RA-59 (8-8.5), RA-60B (6-6.5), RA-58 (4-4.5), RA-59A (6-6.5), RA-59B (6-6.5), DUP-1, should be qualified Estimated (J).

SDG#2211059

- Detected results of Copper, in samples L2211059-01/RA-24 (9.5-10), L2211059-02/RA-24A (7-7.5), L2211059-03/RA-25A (10.5-11), L2211059-04/RA-25B (10.5-11), L2211059-05/RA-25C (10.5-11), L2211059-06/RA-27A (11-11.5), L2211059-07/RA-28A (10.5-11), should be qualified Estimated (J).
- Detected results of Barium, in samples L2211059-01/RA-24 (9.5-10), L2211059-02/RA-24A (7-7.5), L2211059-03/RA-25A (10.5-11), L2211059-04/RA-25B (10.5-11), L2211059-05/RA-25C (10.5-11), L2211059-06/RA-27A (11-11.5), L2211059-07/RA-28A (10.5-11), should be qualified Estimated (J).

SDG#2211334

- Detected results of Zinc, in samples RA-76 (16-16.5), RA-76AI (12-12.5), RA-30 (9-9.5), RA-29A (10.5-11), RA-14 (4-4.5), RA-15 (4-4.5), RA-16 (4-4.5), RA-18 (8-8.5), DUP-20220303, should be qualified Estimated (J).

SDG#2216407

- Detected results of Copper, Zinc, in sample RA-53 (24-24.5), should be qualified Estimated Bias-High (J+).
- Detected results of Lead, in sample RA-53 (24-24.5), should be qualified Estimated (J).

SDG#2217211

- Detected results of Chromium, Zinc, in samples RA-49A (16.5-17), RA-48B (20-20.5), should be qualified Estimated Bias-Low (J-).
- Non- Detected results of Chromium, Zinc, in samples RA-49A (16.5-17), RA-48B (20-20.5), should be qualified Estimated (UJ).
- Detected results of Mercury, in samples RA-49A (16.5-17), RA-48B (20-20.5), should be qualified Estimated Bias-Low (J-).
- Non- Detected results of Mercury, in samples RA-49A (16.5-17), RA-48B (20-20.5), should be qualified Estimated Unusable (R).

SDG#2216807

- Detected results of Lead, in samples RA-33 (4-4.5)/08, RA-67 (4-4.5)/14, should be qualified Estimated Bias-High (J+).
- Detected results of Zinc, in samples RA-55 (4-4.5)/04, RA-11 (6-6.5)/22, RA-56 (4.5-5)/28, should be qualified Estimated Bias-Low (J-).
- Non- Detected results of Zinc, in samples RA-55 (4-4.5)/04, RA-11 (6-6.5)/22, RA-56 (4.5-5)/28, should be qualified Estimated (UJ).
- Detected results of Mercury in sample RA-56 (4.5-5)/28, should be qualified Estimated (J).

SDG#2230163

- Detected results of Zinc, in samples L2230163-01/RA-71 (5-5.5), L2230163-03/RA-72 (5-5.5), L2230163-05/RA-73 (5-5.5), should be qualified Estimated Bias Low (J-).
- Non-Detected results of Zinc, in samples L2230163-01/RA-71 (5-5.5), L2230163-03/RA-72 (5-5.5), L2230163-05/RA-73 (5-5.5), should be qualified Estimated (UJ).
- Detected results of Lead, in samples L2230163-01/RA-71 (5-5.5), L2230163-03/RA-72 (5-5.5), L2230163-05/RA-73 (5-5.5), should be qualified Estimated Bias-High (J+).
- Detected results of Lead, in sample L2230163-02/RA-71 (6-6.5), should be qualified Estimated Bias Low (J-).
- Non-Detected results of Lead, in sample L2230163-02/RA-71 (6-6.5), should be qualified Estimated (UJ).
- Detected results of Mercury in samples L2230163-01/RA-71 (5-5.5), L2230163-03/RA-72 (5-5.5), L2230163-05/RA-73 (5-5.5), should be qualified Estimated (J).

SDG#2216733

- Detected results of Chromium, Lead, Zinc, in samples RA-52B (19-19.5), RA-53B (20-20.5), DUP-1 20220331, should be qualified Estimated Bias-Low (J-).
- Non- Detected results of Chromium, Lead, Zinc, in samples RA-52B (19-19.5), RA-53B (20-20.5), DUP-1 20220331, should be qualified Estimated (UJ).

SDG#2021349

- Detected results of 4,4'-DDT, Dieldrin, in samples 2021349-05/RA-64 (8-8.5'), 2021349-06/RA-2 (5-5.5), 2021349-07/RA-1 (5.5-6), 2021349-08/RA-12 (5.5-6), 2021349-09/RA-65A (11-11.5), should be qualified Estimated Bias High (J+).

- Detected results of target Aroclors in samples 2021349-05/RA-64 (8-8.5'), 2021349-06/RA-2 (5-5.5), 2021349-07/RA-1 (5.5-6), 2021349-08/RA-12 (5.5-6), 2021349-09/RA-65A (11-11.5), should be qualified Estimated Bias High (J+).

SDG#2021370

- Detected results of 4,4'-DDT, Dieldrin, in samples 2021370-01/RA-60 (8.0-8.5), 2021370-02/RA-60A (6.0-6.5), 2021370-03/RA-57 (3.5-4.0), should be qualified Estimated Bias High (J+).
- Detected results of Aroclors in samples 2021370-01/RA-60 (8.0-8.5), 2021370-02/RA-60A (6.0-6.5), 2021370-03/RA-57 (3.5-4.0), should be qualified Estimated Bias High (J+).

SDG#2030005

- Detected results of 4,4'-DDT, Dieldrin, in samples 2030005-01/RA-32 (8.5-9), 2030005-02/RA-43 (8-8.5'), 2030005-03/RA-54 (8-8.5), 2030005-04/RA-59 (8-8.5), 2030005-05/RA-60B (6-6.5), 2030005-06/RA-58 (4-4.5), 2030005-07/RA-59A (6-6.5), 2030005-08/RA-59B (6-6.5), 2030005-09/DUP-1, should be qualified Estimated Bias High (J+).
- Detected results of Aroclors in samples 2030005-01/RA-32 (8.5-9), 2030005-02/RA-43 (8-8.5'), 2030005-03/RA-54 (8-8.5), 2030005-04/RA-59 (8-8.5), 2030005-05/RA-60B (6-6.5), 2030005-06/RA-58 (4-4.5), 2030005-07/RA-59A (6-6.5), 2030005-08/RA-59B (6-6.5), 2030005-09/DUP-1, should be qualified Estimated Bias High (J+).

SDG#2030270

- Detected results of 4,4'-DDD, in samples 2030270-01/RA-30 (9-9.5), 2030270-02/RA-29A (10.5-11), 2030270-03/RA-14 (4-4.5), 2030270-04/RA-15 (4-4.5), 2030270-05/RA-16 (4-4.5), 2030270-06/RA-18 (8-8.5), 2030270-07/DUP-20220303, should be qualified Estimated (J).

SDG#2030404

- Detected results of Dieldrin, in samples 2030404-01/RA-29B (10.5-11), 2030404-02/RA-29 (14.5-15), 2030404-03/RA-28 (14.5-15), 2030404-04/RA-3 (4-4.5), 2030404-05/RA-4 (4-4.5), 2030404-06/RA-5 (4-4.5), 2030404-07/RA-47 (5-5.5), 2030404-08/RA-17 (8-8.5), should be qualified Estimated Bias High (J+).
- Detected results of 4,4'-DDT, Dieldrin, in samples 2030404-01/RA-29B (10.5-11), 2030404-02/RA-29 (14.5-15), 2030404-03/RA-28 (14.5-15), 2030404-04/RA-3 (4-4.5),

2030404-05/RA-4 (4-4.5), 2030404-06/RA-5 (4-4.5), 2030404-07/RA-47 (5-5.5), 2030404-08/RA-17 (8-8.5), should be qualified Estimated Bias High (J+).

SDG#2030493

- Detected results of Dieldrin, in samples 2030493-01/RA-7 (8-8.5), 2030493-02/RA-43 (9-9.5), should be qualified Estimated Bias High (J+).
- Detected results of 4,4'-DDT, Dieldrin, in samples 2030493-01/RA-7 (8-8.5), 2030493-02/RA-43 (9-9.5), should be qualified Estimated Bias High (J+).

SDG#2214842

- Detected results of Target Pesticides in sample CK94606, should be qualified Estimated Bias Low (J-).
- Non-Detected results of Target Pesticides in sample CK94606, should be qualified Estimated (UJ).
- Detected results of Mercury in samples CK94598/RA-6 (9-9.5), CK94599/RA-19 (15-15.5), CK94600/RA-40 (20-20.5), CK94601/RA-51 (22.5-23), CK94602/RA-52 (22-22.5), CK94603/RA-41 (19.5-20), CK94604/RA-39 (21-21.5), CK94605/RA-38 (21.5-22), CK94606/RA-26 (18.5-19), CK94607/RA-50 (22-22.5), that are less than 4 times the spike level should be qualified Estimated Bias Low (J-).
- Non-Detected results of Mercury in samples CK94598/RA-6 (9-9.5), CK94599/RA-19 (15-15.5), CK94600/RA-40 (20-20.5), CK94601/RA-51 (22.5-23), CK94602/RA-52 (22-22.5), CK94603/RA-41 (19.5-20), CK94604/RA-39 (21-21.5), CK94605/RA-38 (21.5-22), CK94606/RA-26 (18.5-19), CK94607/RA-50 (22-22.5), that are less than 4 times the spike level should be qualified Estimated (UJ).

## 3.7 ELECTRONIC DATA DELIVERABLES

The samples collected post-remedial investigation were validated as previously discussed in Section 3.4.1. The data associated with the samples collected was uploaded and submitted to the NYSDEC on May 4, 2022. The electronic submission complied with the NYSDEC Electronic Data Warehouse Standards. Email correspondence including the completion of the electronic submission is included in **Appendix M**.

## 4.0 QUALITATIVE EXPOSURE ASSESSMENT

The Site soils have been remediated to USCOs (Track 1); therefore, the RAOs for public health and environmental protection with regard to soil, soil vapor, and groundwater are no longer a concern at the Site.