46-70 McLean Avenue Auto Repair Laundry

WESTCHESTER COUNTY, NEW YORK

Final Engineering Report

NYSDEC Site Number: C360211

DRAFT

Prepared for:

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Prepared by:

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NOVEMBER 2025

CERTIFICATIONS

I, Brad Summerville, 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 Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established for the remedy.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the Site are contained in an environmental easement created and recorded pursuant to ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by the Department.

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, Brad Summerville, of 170 Keyland Court, Bohemia, New York, am certifying as Owner’s Designated Site Representative for the site.

NYS Professional Engineer #	Date	Signature

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LIST OF ACRONYMS

AMSL	Above Mean Sea Level	**OER**	Office of Environmental Remediation
AST	Aboveground Storage Tank	**ORP**	Oxidation-Reduction Potential
ASTM	American Society for Testing and Materials	**PPM**	Parts Per Million
AOC	Area of Concern	**PPB**	Parts Per Billion
ASP	Analytical Services Protocol	**PCB**	Polychlorinated Biphenyl's
BCP	Brownfield Cleanup Program	**PAH**	Polyaromatic Hydrocarbons
BGS	Below Grade Surface	**PCE**	Tetrachloroethene
BTEX	Benzene Toluene Ethylbenzene and Xylenes	**PGW**	Protection of Groundwater
BER	Business Environmental Risk	**PID**	Photo Ionization Detector
CPP	Citizen Participation Plan	**PFAS**	Per- and Polyfluoroalkyl Substances
CO	Certificate of Occupancy	**PVC**	Polyvinyl Chloride
CSM	Conceptual Site Model	**QAQC**	Quality Assurance Quality Control
cVOC	Chlorinated Volatile Organic Compound	**QAPP**	Quality Assurance Project Plan
CREC	Controlled Recognized Environmental Condition	**RIWP**	Remedial Investigation Work Plan
CEQR	City Environmental Quality Review	**RCRA**	Resource Conservation and Recovery Act
CAMP	Community Air Monitoring Program	**REC**	Recognized Environmental Condition
CLP	Contract Laboratory Program	**RAO**	Remedial Action Alternative
DER	Division of Environmental Remediation	**RAWP**	Remedial Action Work Plan
DOB	Department of Buildings	**RIR**	Remedial Investigation Report
DNAPL	Dense Non-Aqueous Phase Liquid	**SF**	Square Feet
DUSR	Data Usability Summary Report	**SHWS**	State Hazardous Waste Site
DO	Dissolved Oxygen	**SVOC**	Semi-Volatile Organic Compound
EDR	Environmental Data Resources	**SCO**	Soil Cleanup Objective
EIS	Environmental Impact Statement	**SSDS**	Sub-Slab Depressurization System
ELAP	Environmental Laboratory Accreditation Program	**TAGM**	Technical and Administrative Guidance Memorandum
ESA	Environmental Site Assessment	**TCE**	Trichloroethylene
FWRIA	Fish and Wildlife Risk Impact Analysis	**TCL**	Target Compound List
FBG	Feet Below Grade	**TIC**	Tentatively Identified Compound
AWQS	Ambient Water Quality Standard	**TAL**	Target Analyte List
GPR	Ground Penetrating Radar	**USGS**	United States Geological Survey
GPS	Global Positioning System	**USFWS**	United States Fish and Wildlife Service
HREC	Historical Recognized Environmental Condition	**µg/kg**	Micrograms Per Kilogram
HASP	Health and Safety Plan	**µg/m³**	Micrograms Per Cubic Meter
LLC	Limited Liability Corporation	**USCS**	Unified Soil Classification System
MW	Monitoring Well	**UST**	Underground Storage Tank
MS	Matrix Spike	**USEPA**	United States Environmental Protection Agency
MSD	Matrix Spike Duplicate	**VCP**	Voluntary Cleanup Program
NYSDEC	New York State Department of Environmental Conservation	**VOC**	Volatile Organic Compound
NYC	New York City		
NYCDEP	New York City Department of Environmental Protection		
NYSDOH	New York State Department of Health		
NYCRR	New York Codes Rules and Regulations		
NAPL	Non-Aqueous Phase Liquid		
NYSDOT	New York State Department of Transportation		

FINAL ENGINEERING REPORT

1.0 BACKGROUND AND SITE DESCRIPTION

SNL Yonkers LLC entered a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in May 2021 to investigate and remediate a 0.87-acre property located in the City of Yonkers, Westchester County, New York (see **Plate 1**). The property was remediated to Track 2, Restricted Residential Use standards, and is being redeveloped as a commercial self-storage facility.

The Site is located in the County of Westchester, New York and is identified as Section 1, Block 203 and Lot 51.61 on the Westchester County Tax Map #331. The site is bound by Sutherland Park to the north, McLean Avenue and an active gasoline station to the south, Van Cortland Park and Pelton Park to the east, and several commercial properties (including Advance Auto Parts, Chase Bank, Hollywood Florist, and Malecon Restaurant) to the west (see **Plate 2**). The boundaries of the site are fully described in **Appendix A**: Survey Map, Metes and Bounds, and **Appendix B**: Environmental Easement. An electronic copy of this FER, along with all supporting documentation, is included as **Appendix C**.

2.0 SUMMARY OF SITE REMEDY

2.1 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this site.

2.1.1 Groundwater RAOs

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

2.1.2 Soil RAOs

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

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

2.1.3 Soil Vapor RAOs

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

2.1.4 Green Sustainable Elements

The following Greener Best Management Practices have been considered and implemented during the remedial action.

- Energy-Efficient Equipment: Deployed newer, fuel-efficient excavation and hauling equipment to reduce greenhouse gas emissions.
- Recycled Materials: Utilized recycled concrete for sub-base construction (RCA/DGA) to decrease the need for virgin materials.
- Local Material Sourcing: Sourced construction materials locally to reduce transportation emissions and support the local economy.

2.2 DESCRIPTION OF SELECTED REMEDY

The site was remediated in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) dated July 2023 (revised April 7, 2025) and Decision Document dated April 15, 2025.

The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

1. A remedial program was implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques were implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:
   - Considering the environmental impacts of treatment technologies and remedy stewardship over the long term.
   - Conserving and efficiently managing resources and materials.
   - Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.
   - Maximizing habitat value and creating habitat when possible.
   - Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals.
   - Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
   - Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis was completed. The environmental footprint analysis was completed using SiteWise (TM) (available in the Sustainable Remediation Forum [SURF] library). See **Appendix T**. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use were estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for

minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, was incorporated into the remedial program, as appropriate. The project included detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics were tracked during implementation of the remedial action and reported in this Final Engineering Report (FER). A summary of the green remediation evaluation with regards to the above-mentioned metrics can be found in Section 4.8.

2. Excavation of soil/fill at three designated hot spots exceeding Restricted Residential Soil Cleanup Objectives (RRSCOs) listed in Table 1, or down to bedrock where possible. Note: this work was performed under an NYSDEC-approved Interim Remedial Measures (IRM) Work Plan, dated October 28, 2022.
3. Excavation of contaminated soil/fill from the former gasoline Underground Storage Tank (UST) grave that exceeded RRSCOs listed in Table 1, or down to bedrock or water where possible.
4. Decommissioning, cleaning, and removal of five (5) in-ground hydraulic lifts located on the second floor, one (1) 5,000-gallon single walled steel former fuel oil UST located in the former ramp area, and four (4) 550-gallon single walled steel former gasoline tanks, also located in the former ramp area. Note: this work was performed under two (2) individual NYSDEC-approved IRM Work Plans, dated December 24, 2021 (amended June 30, 2022), and October 28, 2022, and a Petroleum Bulk Storage Tank Removal / In-Situ Remediation Work Plan, dated June 3, 2025.
5. Collection of one (1) bottom and four (4) sidewall post-tank removal confirmatory endpoint samples to determine if residual contamination remained. Collection of two (2) post excavation confirmatory endpoint samples from the former ramp area, as directed by NYSDEC.
6. Construction and maintenance of a soil cover system consisting of a minimum 6-inch-thick layer of 3/4-inch virgin quarry stone sub-base, a 20-mil chemically resistant vapor barrier, and 4- to 6-inch-thick concrete building slab to prevent human exposure to remaining contaminated soil/fill remaining at the site.
7. Performance of a single vacuum-enhanced fluid recovery (VEFR) event to evacuate contaminated standing groundwater present within the former tank grave.
8. Performance of in-situ groundwater remediation utilizing approximately 240 pounds of

Regenesis ORC Advanced (calcium oxyhydroxide) distributed and mixed directly into standing groundwater in the excavation of the four (4) removed gasoline USTs.

9. Installation of between five and seven new permanent groundwater monitoring wells, depending on which, if any, pre-existing monitoring wells (installed by IEEG and others) remain.
10. Performance of a minimum of two (2) rounds of post-remedial quarterly groundwater sampling using the pre-existing (if remaining) and newly installed permanent groundwater monitoring wells to provide data to establish the efficacy of the remedial actions.
11. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.
12. Development and implementation of a Site Management Plan (SMP) for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.
13. Periodic certification of the Institutional and Engineering Controls (IC/ECs) listed above.

3.0 INTERIM REMEDIAL MEASURES AND REMEDIAL CONTRACTS

The information and certifications made in the June 30, 2023, IRM Construction Completion Report (CCR) were relied upon to prepare this report and certify that the remediation requirements for the site have been met.

3.1 INTERIM REMEDIAL MEASURES

All work was performed in accordance with the June 20, 2021, Remedial Investigation/Interim Remedial Measure Work Plan and the October 28, 2022, IRM Work Plan Addendum (collectively the "IRM Work Plan"). The New York State Department of Environmental Conservation (NYSDEC) issued notice to proceed on August 26, 2021, and November 23, 2022. The work discussed herein is summarized in an IRM Construction Completion Report (CCR), submitted to the Department on June 30, 2025, and included in **Appendix J**. A third IRM Work Plan was submitted to the Department on February 4, 2025, and was approved by NYSDEC on February 14, 2025. The IRM CCR will be updated to include the work performed under the February 2025 IRM Work Plan and will be submitted to the Agency under separate cover.

3.1.1 UST Decommissioning and Removal

Remedial activities completed at the Site were conducted in accordance with the IRM Work Plan for the Site between June 2021 and June 2023. No deviations from the IRM Work Plan and subsequent amendments occurred.

3.1.1.1 UST Decommissioning

All decommissioning work was performed in accordance with a Westchester County Department of Health Petroleum Bulk Storage Work Permit, issued on October 18, 2022. On October 20, 2022, Brookside Environmental, Inc (Brookside), accessed the top of the 5,000-gallon fuel oil UST. The top of the UST was cut using a circular saw, and the standing liquids from within the tank were evacuated into a pump truck. A total of 1,204-gallons of oil were pumped from the tank and transported and disposed of at Clean Water of New York, Staten Island, NY. Once fully evacuated, the tank was accessed via the hole, and the remaining sludge and solids were scraped from the bottom and placed in a 55-gallon DOT regulated steel drum. A total of 300 pounds of sludge were removed from the bottom of the tank and transported and disposed of at Clean Water of New

York, Staten Island, NY.

On October 21, 2022, once the tank was fully cleaned, the demolition contractor, D-Best Industries (D-Best), began excavating soils from around the UST to facilitate its removal from the ground. Brookside then cut the UST in half using a circular saw, and the two (2) tank halves were removed from the ground and staged at grade by D-Best for further inspection and evaluation. IEEG inspected the tank, and no evidence of holes, cracks, or pitting was observed. Furthermore, the tank grave was inspected by IEEG for signs of spills or leaks from the former tank. While a small area of dark colored soil was observed near the fill port side of the tank grave, indicative of a previous overfill, no evidence of gross contamination was identified in the tank grave.

On October 24, 2022, Mr. Matthew Hubicki from the NYSDEC was onsite to observe the tank grave, staged UST shell, and the overall Site conditions and status. Mr. Hubicki confirmed that no evidence of gross contamination was identified within the tank grave, and no evidence of holes, cracks, or pitting, was observed in the removed UST. Under the oversight of IEEG, D-Best continued over excavation of the tank grave, including removal of the minor stained soils (which were segregated from clean material, and stockpiled on plastic sheeting), to determine if any deeper contamination was present in the excavation. No such contaminated soil was observed. On the same day, Brookside removed the steel UST shell from the Site and disposed of it as scrap metal.

On October 27, 2022, IEEG collected waste characterization samples (RAMP-1 COMP and RAMP-1-GRAB) from the non-impacted stockpiled soils removed from the UST excavation. On December 8, 2022, this material was approved for disposal at Impact Reuse & Recovery Center (IRRC) located at 1000 Page Avenue, Lyndhurst, NJ (NJDEP #CBG170002). The material met the NJDEP Residential Standards for disposal. The material was transported and disposed of at IRRC, along with other approved non-IRM associated materials, on December 19, 2022. The minor stained soil was removed and disposed of at Clean Earth of Carteret, LLC (CEC), of Carteret, NJ on February 20, 2023.

3.1.1.2 UST Post-Removal Endpoint Sampling and Results

On October 25, 2022, IEEG collected two (2) confirmatory bottom endpoint samples and one (1) confirmatory south sidewall sample (collected at approximately 5-feet bgs) from the tank grave. Sidewall samples from the north, east, and west sides of the grave could not be collected due to the presence of concrete retaining walls. The three (3) samples were placed in laboratory

provided clean glassware, stored on ice, and were delivered via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301). The samples were analyzed for NYSDEC CP-51 list VOCs and SVOCs in accordance with USEPA Methods 8260 and 8270.

Based on a review of the post UST Removal bottom and sidewall endpoint samples (see **Plate 3**), the VOC n-butylbenzene was detected at a concentration of 3.4 microgram per kilogram (ug/kg) in sample Tank Bottom East, below the NYSDC CP-51 standard of 12,000 ug/kg. No other VOCs were detected in the three (3) samples. The SVOCs chrysene, phenanthrene, and pyrene were detected at concentrations of 140 ug/kg, 270 ug/kg, and 210 ug/kg respectively in sample Tank Bottom East, below their CP-51 standards of 1,000 ug/kg and 100,000 ug/kg respectively. No other SVOCs were detected in the three (3) samples.

On December 20, 2022, IEEG conducted a round of post UST removal groundwater samples from hydraulically downgradient monitoring wells, including WP-11 through WP-14, located south of the former UST.

It should be noted that several of the monitoring wells installed by IEEG during the RI (including MW-4A, MW-5A, MW-7A, and MW-9A) were damaged during demolition and construction activities and thus could not be sampled during this event.

Each of the four (4) wells were adequately gauged and purged prior to groundwater sample collection. Groundwater elevation and groundwater flow direction was evaluated based on the current gauging data and previous surveyed elevations of the wells from previous consultants reports on file. Depth to Water (DTW) measurements were collected utilizing a Solinst® Oil/Water interface Probe (Interface Probe), which can determine both Light Non-Aqueous Phase Liquid (LNAPL), known more commonly as free product, thicknesses and groundwater depth measurements within 0.01 foot.

Based on the gauging event of December 20, 2022, DTW ranged from 15.05 feet (WP-14) to 16.2 feet (WP-11). LNAPL was not detected in the monitoring wells gauged. Groundwater flow direction appeared generally to be to the southwest with a possible component of flow to the northwest around WP-11. This data is generally consistent with gauging data from previous reports on file, apart from WP-11, which has a higher elevation.

One (1) representative groundwater sample was collected from each well using a peristaltic pump and dedicated Teflon-coated tubing. Groundwater samples collected from WP-11, WP-12, WP-

13, and WP-14 were submitted to Alpha Analytical laboratory of Westborough MA, a New York State certified ELAP laboratory, for analysis of Full Target Compound List (TCL) parameters for Volatile Organic Compounds (VOCs) via EPA Method 8260 and Semi-VOCs via EPA Method 8270. The results are summarized in Table 2- Groundwater Analytical Results Summary. Table 2 includes analytical data compared to the New York State Water Technical Operations and Guidance Series (TOGS 1.1.1) as Ambient Water Quality Standards (AWQS). The AWQS exceedances are highlighted in gray. All results are presented in micrograms per Liter (ug/L).

Below is a table showing the exceedances of the NYSDEC TOGS 1.1.1 GA Table 1 standards for ambient groundwater quality for wells WP-11, WP-12, WP-13, and WP-14. Exceedances of the TOGS GA standards are highlighted gray, and the table also shows the Total BTEX and Total VOCs present in each well. Also see **Plate 4**.

Collection Date			12/20/2022		12/20/2022		12/20/2022		12/20/2022	
Client Id			WP-11		WP-12		WP-13		WP-14	
Matrix			GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
Project: 60 MCLEAN AVE YONKERS NY	Units	TOGS 1.1.1 WQ/GA Table 1	Result	RL	Result	RL	Result	RL	Result	RL
Semivolatiles (SIM) - SW8270D (SIM)										
Benz(a)anthracene	ug/L	**0.002**	**0.02**	0.02	< 0.02	*0.02*	< 0.02	*0.02*	< 0.02	*0.02*
Benzo(b)fluoranthene	ug/L	**0.002**	**0.02**	0.02	< 0.02	*0.02*	< 0.02	*0.02*	< 0.02	*0.02*
Chrysene	ug/L	**0.002**	**0.02**	0.02	< 0.02	*0.02*	< 0.02	*0.02*	< 0.02	*0.02*
Bis(2-ethylhexyl)phthalate	ug/L	**5**	**28**	0.94	**12**	0.94	**35**	0.94	< 2.4	2.4
Naphthalene	ug/L	**10**	**34**	4.7	-	-	-	-	-	-
Volatiles - SW8260C										
1,2,4-Trimethylbenzene	ug/L	**5**	**98**	2	**270**	5	**3.7**	1	**9.8**	1
1,3,5-Trimethylbenzene	ug/L	**5**	**37**	2	**110**	5	**1.5**	1	**2.2**	1
Benzene	ug/L	**1**	< 0.70	0.7	**2.2**	1.3	< 0.70	0.7	< 0.70	0.7
Ethylbenzene	ug/L	**5**	**21**	2	**28**	5	**0.27**	1	**0.65**	1
Hexachlorobutadiene	ug/L	**0.5**	< 0.50	0.5	< 1.3	*1.3*	< 0.40	0.4	< 0.40	0.4
Isopropylbenzene	ug/L	**5**	**12**	2	**42**	5	**0.3**	1	**1.6**	1
n-Butylbenzene	ug/L	**5**	**3.7**	2	**12**	5	< 1.0	1	**0.73**	1
n-Propylbenzene	ug/L	**5**	**16**	2	**52**	5	**0.46**	1	**1.6**	1
Naphthalene	ug/L	**10**	**24**	2	**38**	5	< 1.0	1	**2.2**	1
o-Xylene	ug/L	**5**	**31**	2	**33**	5	**0.45**	1	**2.9**	1
p-Isopropyltoluene	ug/L	**5**	**5.7**	2	**20**	5	**0.73**	1	**1.7**	1
sec-Butylbenzene	ug/L	**5**	**3.4**	2	**13**	5	**0.34**	1	**0.98**	1
Total Xylenes	ug/L	**5**	**112**	2	**173**	5	**1.7**	1	**9.9**	1
TOTAL BTEX	ug/L		**245**		**376.2**		**3.62**		**11.29**	
TOTAL VOCs	ug/L		**457.72**		**970.5**		**14.55**		**43.34**	

While several SVOC and VOC exceedances of the standards are present in primarily WP-11 and WP-12, total VOCs are below 1,000 ug/L in both wells. Based on the In the December 2022 groundwater sampling event, total VOCs ranged from 14.55 ug/L in WP-13 to 970.5 ug/L in WP-12, and Total BTEX concentrations ranged from 3.62 ug/L in WP-13 to 376.2 ug/L in WP-12, with some variation from the 2021 groundwater sample results likely due to exposed under slab areas and stormwater influences due to infiltration. When comparing IEEG December 2022 groundwater sampling results to the Structural Engineering Technologies, P.C. (SET) Third Round Groundwater Testing report, dated September 11, 2020 (in which groundwater sampling was performed on August 18, 2020), total VOCs in WP-11 have decreased by approximately 86%, and in WP-12 by approximately 32%. Total BTEX concentrations in WP-11 have decreased by 86%, and

in WP-12 by approximately 33%.

3.1.2 Hydraulic Lift Decommissioning and Removal

3.1.2.1 Lift/Reservoir Decommissioning

On October 12, 2022, two (2) hydraulic lift pistons and associated reservoirs were encountered in the northeast portion of the second floor, beneath the demolished concrete slab. Approximately 3-cubic yards of soil were excavated from around the lifts/pistons and placed on plastic sheeting. On October 17, 2022, two (2) additional hydraulic lifts pistons and associated reservoirs were uncovered proximally to the original two (2) pistons. On the same day, Brookside pumped hydraulic oils from the four (4) lift pistons into seven (7) DOT-regulated steel 55-gallon drums pending characterization and eventual removal/disposal. Additional soils were excavated from around the four (4) lifts and placed with the prior stockpiled material on plastic sheeting. This material was covered overnight. Additional excavation around the lift pistons was performed on October 20, 2022, to facilitate their eventual removal from the ground. Soil was stockpiled on plastic sheeting and covered overnight.

On October 21, 2022, one (1) additional hydraulic lift piston and reservoir was uncovered on the first floor, associated with the previous elevator.

On November 28, 2022, bedrock from around the embedded hydraulic lift pistons was demolished to facilitate the removal of the pistons and reservoirs. On this day, one (1) lift piston/reservoir (designated HL-1) was able to be removed and was placed on poly sheeting pending offsite disposal. On November 29, 2022, further bedrock demolition was performed, and lift pistons/reservoirs HL-2 and HL-3 were removed and placed with HL-1 on plastic sheeting. Further potentially impacted soils were excavated from around the pistons and stockpiled on plastic sheeting. Hydraulic piston/reservoir HL-4 was removed on November 30, 2022. On the same day, the four (4) pistons and reservoirs were transported and disposed of by Brookside as scrap metal.

On December 1, 2022, hydraulic oil was pumped from the elevator lift piston and reservoir on the first floor, into a 55-gallon DOT-regulated steel drum. The piston/reservoir was then removed from the ground and transported and disposed of by Brookside as scrap metal.

On December 6, 2022, three (3) individual stockpiles of material excavated from around the hydraulic lift pistons were comingled into a single stockpile. On December 7, 2022, IEEG collected

waste characterization samples from this stockpile (designated Hydraulic Lift Stockpile SP-1). The data was forwarded to Clean Earth of Carteret, LLC (CEC), of Carteret, NJ. On January 24, 2023, CEC issued an approval letter for the material in this stockpile. This material was exported from the Site on February 20, 2023, for disposal at CEC.

On December 20, 2022, IEEG collected and submitted waste characterization samples of the hydraulic oil drums for disposal approval. Veolia ES Technical Solutions LLC provided an approval letter for the oil drums on March 9, 2023. The drums were removed from the Site on March 27, 2023, and disposed of at Veolia ES Technical Solutions of Flanders, NJ.

3.1.2.2 Post Hydraulic Lift Piston/Reservoir Sampling and Results

On December 2, 2022, Brookside pumped standing water (thought to be perched groundwater) from within each of the hydraulic lift excavations to facilitate IEEG collecting endpoint samples. The oily water was pumped into four (4) DOT-regulated 55-gallon steel drums pending waste characterization and disposal. IEEG first screened the soils within the hydraulic lift excavations for evidence of VOCs, using a photo-ionization detector. Screening resulted in no evidence of VOCs. IEEG then collected four (4) confirmatory bottom endpoint samples from each of the four (4) hydraulic lift excavations (refer to Figure 6). The four (4) samples (designated HL-1, HL-2, HL-3, and HL-4) were placed in laboratory provided clean glassware stored on ice and were delivered via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301). The samples were analyzed for NYSDEC CP-51 list VOCs and SVOCs, and TCL PCBs, in accordance with USEPA Methods 8260 and 8270, and 8082A, respectively. The four (4) drums of oil/water were approved for disposal in an Approval Letter from Clean Water of New York on March 15, 2023. The four (4) drums were removed from the Site by Brookside on March 27, 2023, and transported to Clean Water of New York, of Staten Island, NY.

Based on a review of the post hydraulic lift piston/reservoir removal bottom endpoint samples (see **Plate 5**), while a number of VOCs (including 1,2,4-trimethylbenzene, 1,3,5-trimenthylbenzene, n-butylbenzene, naphthalene, p-isopropyltoluene, and sec-butylbenzene) and SVOCs (including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, chrysene, fluoranthene, phenanthrene, and pyrene) were detected in the samples, no compounds were detected in exceedance of their respective NYSDEC CP-51 Standards. The PCB 1260 was detected at a concentration of 140 ug/kg in sample HL-1, 180 ug/kg in HL-2, and 130 ug/kg in HL-4, below its CP-51 standard of 1,000 ug/kg. No other VOCs, SVOCs,

or PCBs were detected in the four (4) samples.

On December 9, 2022, IEEG staff collected two (2) apparent perched groundwater samples from standing water within the hydraulic lift piston excavations, as requested by NYSDEC BCP Project Manager Mr. Matthew Hubicki, to determine if the groundwater was impacted from the previous hydraulic lifts (see Figure 5). Sample volumes were obtained using a bailer, placed in laboratory provided clean glassware, stored on ice, and were delivered via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301). The samples were analyzed for NYSDEC TCL list VOCs and SVOCs, and TCL PCBs, in accordance with USEPA Methods 8260 and 8270, and 8082A, respectively.

Based on a review of the post hydraulic lift piston/reservoir removal groundwater samples (see **Plate 5**), no VOC, SVOC, or PCB compounds were detected in exceedance of their respective NYSDEC TOGS 1.1.1 WQ/GA Table 1 Standards.

3.1.3 Hot Spot Excavation

3.1.3.1 Excavation and End Point Sampling

Between December 13 and December 22, 2022, D-Best conducted the slab and bedrock demolition required to uncover the hotspot in the location of former soil boring SB-1, located in the northwest portion of the second floor. This was designated HS-1. During this time, once the slab had been removed, a negligible quantity of soil was removed from the 10-foot by 10-foot area, due to the presence of bedrock undulating directly below the slab. The depth of the excavation was approximately 2 feet below grade surface. Approximately 2-cubic yards of soil were removed and placed on plastic sheeting pending waste characterization and disposal. Due to the presence of bedrock at the base of the excavation, and on the north, east, and west sidewalls, only one confirmatory endpoint sample could be collected from the southern sidewall. This sample was designated HS-1-SWS, and was placed in laboratory supplied glassware, stored on ice, and was delivered via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301). The samples were analyzed Target Analyte List (TAL) Metals / Part 375 List metals (including cyanide, and hexavalent and trivalent chromium) by USEPA Methods 6010C/7471B/9010C/7196A.

On February 20, 2023, D-Best conducted the slab and bedrock demolition required to uncover the hotspot in the location of former soil boring SB-3, located in the northwest portion of the second

floor. This was designated HS-3. During this time, once the slab had been removed, a negligible quantity of soil was removed from the 10-foot by 10-foot area, due to the presence of bedrock undulating directly below the slab. The depth of the excavation was approximately 3-feet below grade surface. Approximately 5-cubic yards of soil were removed and placed on plastic sheeting pending waste characterization and disposal. Due to the presence of bedrock at the base of the excavation, only four (4) confirmatory endpoint samples could be collected from the north, south, east, and west sidewalls. These samples were designated HS-3-N, HS-3-S, HS-3-E, and HS-3-W, and were placed in laboratory supplied glassware, stored on ice, and delivered via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301). The samples were analyzed Target Analyte List (TAL) Metals / Part 375 List metals (including cyanide, and hexavalent and trivalent chromium) by USEPA Methods 6010C/7471B/9010C/7196A.

On April 5, 2023, D-Best conducted the slab and bedrock demolition required to uncover the hotspot in the location of former soil boring SB-10A, located in the southern portion of the first floor. This was designated HS-10A. During this time, once the slab had been removed, a negligible quantity of soil was removed from the 10-foot by 10-foot area, due to the presence of bedrock undulating directly below the slab. The depth of the excavation was approximately 3-feet below grade surface. Approximately 5-cubic yards of soil were removed and placed on plastic sheeting pending waste characterization and disposal. Due to the presence of bedrock at the base of the excavation, only three (3) confirmatory endpoint sample could be collected from the north, east, and west sidewalls. These samples were designated HS-10A-N, HS-10A-E, and HS-10A-W, and were placed in laboratory supplied glassware stored on ice, and delivered via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301). The samples were analyzed Target Analyte List (TAL) Metals / Part 375 List metals (including cyanide, and hexavalent and trivalent chromium) by USEPA Methods 6010C/7471B/9010C/7196A.

3.1.3.2 Sampling Analysis and Results

Based on a review of the HS-1 endpoint samples, while a number of metals exceeded the NYSDEC Part 375 Unrestricted Use SCOs (including copper, nickel, and trivalent chromium), no compounds, including trivalent chromium, were detected in exceedance of their respective NYSDEC Part 375 Restricted Residential SCOs. Based on a review of the HS-3 endpoint samples, while a number of metals exceeded the NYSDEC Part 375 Unrestricted Use SCOs (including mercury, nickel, and trivalent chromium), no compounds, including mercury, were detected in

exceedance of their respective NYSDEC Part 375 Restricted Residential SCOs. Based on a review of the HS-10A endpoint samples, three (3) metals exceeded the NYSDEC Part 375 Restricted Residential Use SCOs (including Barium and Lead in the East sample, and Mercury, in the northern sample).

Due to the elevated concentrations of Barium, Lead, and Mercury, on April 10, 2023, D-Best Industries conducted further excavation of Hotspot HS-10A, approximately 5-feet to the north, and 5-feet to the east. Two (2) additional confirmatory endpoint samples were collected from the northern extent and eastern extent of HS-10A, HS-10A-N and HS-10A-E. Based on a review of the secondary HS-10A endpoint samples, two (2) metals, barium and lead, exceeded the NYSDEC Part 375 Restricted Residential Use SCOs in the northern EP sample. No exceedances of RRSCOs were detected in the eastern sample.

Due to the presence of the northern first floor retaining wall and abundance of bedrock, no further excavation of HS-10A could be conducted to the north. This information was provided to Mr. Hubicki by phone on April 18, 2023, and Mr. Hubicki indicated that no additional remedial actions would be required for HS-10A. See **Plate 6** for results of the endpoint sampling of all three (3) hot spots.

3.1.4 Exterior Remedial Investigation Sampling

3.1.4.1 Sample Collection

On December 9, 2022, two (2) exterior soil samples from 0-2 fbg were collected using a decontaminated stainless-steel hand auger. These two (2) samples, designated SB-21 and SB-22, were collected from outside the northwest corner of the Site building. Exterior RI Sample Locations are shown in Figure 7. The samples were placed in laboratory provided glassware, stored on ice, and transported via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301), and analyzed for TAL Metals / Part 375 List metals (including cyanide, and hexavalent and trivalent chromium) by USEPA Methods 6010C/7471B/9010C/7196A. These samples were collected to evaluate areas that may have been used historically for drum storage or staging areas. Quality Assurance and Quality Control (QA/QC) samples were also collected, and included one (1) Duplicate, one (1) Matrix Spike (MS), one (1) Matrix Spike Duplicate (MSD), one (1) Field Blank (FB), and one (1) Trip Blank (TB).

3.1.4.2 Sample Analysis and Results

Based on a review of the analytical data from samples SB-21 and SB-22 (see **Plate 7**), while a number of metals exceeded the NYSDEC Part 375 Unrestricted Use SCOs (including lead, mercury, and zinc), no compounds were detected in exceedance of their respective NYSDEC Part 375 Restricted Residential SCOs.

3.1.5 Trench Drain Sampling

3.1.5.1 Sample Collection

On April 10, 2023, the "L" shaped trench drain located in the boiler room was investigated. It was found to discharge at each end via sumps. Using a jackhammer, the discharge points were opened up to allow access to the soils beneath. Two (2) soil samples from 0-2 fbg were collected from the soils beneath the discharge locations using a decontaminated stainless-steel hand auger, designated FT-1 and FT-2. The samples were placed in laboratory provided glassware, stored on ice, and transported via lab courier to ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301), and analyzed for Full Part 375 Analytical Parameters; TCL VOCs by USEPA Method 8260, TCL SVOCs by USEPA Method 8270, TAL Metals / Part 375 List metals (including cyanide, and hexavalent and trivalent chromium) by USEPA Methods 6010C/7471B/9010C/7196A, PCBs by USEPA Method 8082A, Pesticides by Method 8081B, and Herbicides by Method 8151.

3.1.5.2 Sample Analysis and Results

Based on a review of the analytical data from samples FT-1 and FT-2 (see **Plate 8**), while a number of metals (copper and zinc) exceeded the NYSDEC Part 375 Unrestricted Use SCOs, no compounds were detected in exceedance of their respective NYSDEC Part 375 Restricted Residential SCOs.

3.1.6 North Wall Soil Sample

3.1.6.1 Sample Collection

On April 10, 2023, a single soil sample was collected using a decontaminated stainless-steel hand auger from apparent stained dark colored soils from along the second-floor northern wall, designated SB-23. Refer to Figure 9 for Second Floor North Wall Sample Location Map. The sample was placed in laboratory provided glassware, stored on ice, and transported via lab courier to

ELAP-certified Phoenix Analytical Laboratories of Manchester, CT (ELAP Certification #11301), and analyzed for Full Part 375 Analytical Parameters; TCL VOCs by USEPA Method 8260, TCL SVOCs by USEPA Method 8270, TAL Metals / Part 375 List metals (including cyanide, and hexavalent and trivalent chromium) by USEPA Methods 6010C/7471B/9010C/7196A, PCBs by USEPA Method 8082A, Pesticides by Method 8081B, and Herbicides by Method 8151.

3.1.6.2 Sample Analysis and Results

Based on a review of the analytical data from sample SB-23 (see **Plate 9**), while a number of metals and pesticides exceeded the NYSDEC Part 375 Unrestricted Use SCOs (including lead, trivalent chromium, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and a-chlordane), no compounds were detected in exceedance of their respective NYSDEC Part 375 Restricted Residential SCOs.

3.2 REMEDIAL CONTRACTS

On April 23, 2025, four (4) 550-gallon gasoline USTs were discovered during additional excavation of the buildings ramp area. All remedial work was performed in accordance with the June 3, 2025, Petroleum Bulk Storage Tank Removal / In-Situ Remediation Work Plan. The New York State Department of Environmental Conservation (NYSDEC) gave notice to proceed on June 11, 2025.

3.2.1 UST Cleaning, Cutting, and Removal

On May 29, 2025, the tank removal contractor, Brookside Environmental (Brookside) was onsite to begin pumping the standing product from each of the four (4) tanks. During the liquid extraction, Impact identified elevated VOC impacts in vapor, as indicated on a photo ionization detector (PID), and Impact instructed the team to cease work until VOC concentrations in the air decreased to below action levels. Impact conducted screening of the excavation and surrounding soils but found the highest VOC concentrations were being emitted from a vent on the Brookside pump truck. Several complaints from surrounding properties were received due to excessive odor coming from the Site. On this day approximately 1,325-gallons of product was transported to Advanced Waste and Water Technology of Farmingdale, NY.

Based on the ongoing VOC concentrations detected proximal to the Brookside pump truck, an NYSDEC representative ordered work to cease until such time that Brookside could mitigate vapor omission from their trucks vent. Impact requested Brookside fit a carbon filtration system to the

vent before returning to the Site the following day. NYSDEC also instructed Brookside to utilize a vapor mitigation spray (such as BioSolve) to mist the work area and reduce vapor concentrations and off-gassing. Brookside indicated they would re On May 30, 2025, Brookside returned with the filtration system fitted to the pump truck. Pumping recommenced with no VOCs detected above action levels. Once the tanks were pumped, the foundation contractor, D-Best Industries (D-Best) began removing the tanks from the ground. Gasoline impacted soil was observed under the easternmost tank, once removed. Additionally, an oily sheen was noted on the standing groundwater in the pit. NYSDEC and WCDOH inspectors agreed that work should stop until the BioSolve product could be deployed to mitigate vapor migration. Impact instructed D-Best to cover the excavation, soil stockpile, and tanks with poly sheeting, to avoid any further vapor off-gassing. On this day approximately 520-gallons of product was transported to Advanced Waste and Water Technology of Farmingdale, NY turn on Friday with BioSolve and the requested carbon filtration unit.

Impact contacted NYSDEC BCP Project Manager, Matthew Hubicki, and asked if in-situ remedial product could be applied to the standing groundwater as part of remediation, rather than perform post construction remedial injections. Mr. Hubicki agreed, and a Tank Removal Work Plan was submitted to the NYSDEC.

On June 2, 2025, D-Best Removed the remaining three (3) USTs from the ground and staged them at grade pending WCDOH and NYSDEC inspection. The post removal excavation was approximately 200-square-feet in size, and an estimated 75% of the excavation contained approximately 2-3-feet of standing groundwater, below which appeared to be bedrock. As requested by NYSDEC, Impact collected a sample of the standing groundwater for analysis. The groundwater sample results (see **Plate 11**) showed highly elevated concentrations of several petroleum related VOCs and SVOCs in exceedance of NYSDEC Ambient Water Quality Standards (AWQS).

On June 17, 2025, the four (4) clean removed USTs were transported to and disposed of at Gershow Recycling of Lindenhurst, NY.

3.2.2 Soil Screening, Excavation, and Sampling

On June 2, 2025, following the removal of the USTs, the underlying soils within the tank grave were inspected and field screened with a photo-ionization detector by qualified personnel for the

presence of volatile organic compounds (VOCs) or evidence of release (i.e., soil discoloration or olfactory indications).

Based on field screening, evidence of soil contamination was identified by way of elevated PID readings and gasoline odors. Between June 2 and June 18, 2025, over excavation of the impacted materials was performed using a small excavator or backhoe to the extent practicable. Removed soils were stockpiled on poly sheeting and covered overnight, pending characterization, transport, and disposal facility approval. Impact collected waste characterization samples of the impacted soil stockpile, and the material was approved for, and disposed of at Pure Soil Technologies of Jackson, NJ, on July 9, 10, 11, and 15, 2025.

Shallow groundwater was encountered in the base of the excavation, following soil removal. In order to maximize contaminant removal, Brookside Environmental were contracted to perform a Vacuum Enhanced Fluid Recovery (VEFR) event, to remove as much contaminated groundwater as possible. On June 17, 2025, approximately 432 gallons of groundwater were pumped out of the excavation using a vacuum truck and transported to Advanced Waste and Water Technology of Farmingdale, NY, along with one (1) steel 55-gallon drum containing 250-pounds of tank bottom waste.

On June 18, 2025, Impact collected five (5) bottom and sidewall confirmatory endpoint samples in accordance with NYSDEC DER-10 sampling guidance. Each sample was placed in laboratory supplied certified clean glassware, placed on ice, and transported to an ELAP Certified lab for analysis of NYSDEC CP-51 list VOCs and semi-volatile organic compounds (SVOCs). Results of the end point and side wall samples (see **Plate 10**) indicated elevated concentrations of primarily gasoline related VOCs (and a few SVOCs) in the base of the excavation (sample “Tank Bottom”) and, to a lesser extent, in the four (4) sidewall samples.

3.2.3 Remediation, Backfill, and Restoration

On July 9, 2025, due to the presence of residual soil and groundwater contamination, as approved by NYSDEC in an Interim Remedial Measures Work Plan, Impact deployed approximately 240-pounds of Regenesis Oxygen Release Compound (ORC) Advanced into the exposed groundwater within the UST grave. The ORC Advanced was then mixed into the soil and groundwater using a mini excavator, until thoroughly dispersed to increase its remedial effectiveness. Following the ORC Advanced application, the excavation was partially backfilled with clean soil generated from

utility trenching in the central portion of the first floor (this material was sampled by Impact, analyzed, and approved for on-site reuse by NYSDEC).

On July 10 and 11, 2025, two (2) loads of ASTM #57 virgin quarry ¾" bluestone was delivered to the site from Tilcon Mount Hope Quarry, to complete the backfilling of the UST grave. Once fully backfilled the excavation was compacted and then covered with part of the site-wide vapor barrier system and finally capped with concrete slab.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved RAWP for the 46-70 McLean Avenue Auto Repair Laundry Site July 2023 (revised April 7, 2025). All deviations from the RAWP are noted below.

4.1 GOVERNING DOCUMENTS

4.1.1 Site Specific Health & Safety Plan (HASP)

All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA.

The Health and Safety Plan (HASP) was complied with for all remedial and invasive work performed at the Site.

4.1.2 Quality Assurance Project Plan (QAPP)

The QAPP was included as **Appendix K** of the RAWP 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.

4.1.3 Soil/Materials Management Plan (S/MMP)

4.1.3.1 Soil Screening Methods

Visual, olfactory, and PID soil screening and assessment was performed by a qualified environmental professional or experienced field scientist under the direction of the Remedial Engineer during all remedial and development (if any) excavations into known or potentially contaminated material. Soil screening was performed regardless of when the invasive work is done and included all excavation and invasive work performed during the remedy phase and development (if any), such as excavations for utility work, prior to issuance of the Certificate of Completion.

4.1.3.2 Temporary Soil Staging Methods

Although direct-loading of trucks was primarily performed to the extent practical, excavated soil

was occasionally stored as temporary stockpiles or in roll-off containers. Stockpiles, and were inspected at a minimum once each week and after every storm event. Results of inspections were recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. Stockpiles were lined and covered with polyethylene sheeting and continuously encircled with silt fences or hay bales (except where material is being loaded or removed). Hay bales or inlet protection covers were used as needed near catch basins and other discharge points. Water was available on-Site at suitable supply and pressure for use in dust control. Roll-off containers were covered. If wet soil was encountered, roll-offs were lined.

4.1.3.3 Soil Transport Routes

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded. Proposed in-bound and out-bound truck routes to the Site are shown in Plate 16 of the RAWP. This was the most appropriate route and took into account: (a) limiting transport through residential areas and past sensitive sites to the extent practicable; (b) use of city mapped truck routes; (c) prohibiting off- Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]]. Material transported by trucks exiting the Site was secured with tight-fitting covers. Loose-fitting canvas-type truck covers were prohibited. If loads contained wet material capable of producing free liquid, truck liners were used.

4.1.3.4 Material Excavation and Load-Out, Transportation and Off-Site Disposal

The Remedial Engineer or a qualified environmental professional under his/her supervision oversaw all invasive work, including the excavation and load-out of all excavated material.

The Volunteer and its contractors were solely responsible for safe performance of all invasive work, the structural integrity of excavations, and the stability of structures that may have been affected by the excavations (e.g., sidewalks, drainage structures, parking lot islands, electrical service, etc.).

All transport of materials was performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers were appropriately licensed and trucks properly placarded. Trucks were prohibited from stopping and idling in the neighborhood outside the project Site. Off-Site queuing was minimized to the extent practicable.

Locations where vehicles enter or exit the Site were inspected daily for evidence of tracking soil off the Site. Egress points for truck and equipment transport from the Site were kept clean of dirt and other materials during Site remediation and development.

The disposal locations were determined prior to implementation of the on-Site Remedial Action and were reported to the NYSDEC Project Manager.

Unregulated off-Site management of materials from this Site was prohibited without formal NYSDEC approval. Material that did not meet Track 1 UU SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-15 Registration Facility).

The following documentation was obtained and reported by the Remedial Engineer for each disposal location used in this project to fully demonstrate and document that the disposal of material derived from the Site conformed with all applicable laws: (1) a completed disposal facility application for each receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This application will state that material to be disposed of is contaminated material generated at an environmental remediation Site in New York State. The application will provide the project identity. The application will include as an attachment a summary of all chemical data for the material being transported (including Site Characterization data); and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents are included in this FER.

This FER includes an accounting of the destination of all material removed from the Site during this on-Site Remedial Action, including excavated soil, solid waste, hazardous waste (if any), non-regulated material, and fluids. Documentation associated with disposal of all material includes records and approvals for receipt of the material.

Bill of Lading system or equivalent was used for off-Site movement of non-hazardous wastes and contaminated soils.

No hazardous wastes were derived from the Site.

4.1.3.5 Material Reuse On-Site

Soil originating on the Site may have been reused on the site provided laboratory analysis of the soil demonstrated compliance with SCGs as detailed in DER-10 Table 5.4(e)4. Otherwise, soil was disposed of in a permitted treatment, storage or disposal facility. Procedure for determining if soil

reuse was appropriate:

- The number of samples required to demonstrate compliance with SCGs was dependent on the volume of soil identified for reuse.
- Grab soil samples were required for VOC analysis by USEPA Method 8260, and discrete samples from 3 to 5 random locations from the volume of soil to be tested are composited for SVOCs by USEPA Method 8270, PCBs, organochlorine pesticides, TAL metals and PFAS compound analysis.
- Levels of contamination could not exceed the lower of the protection of groundwater and residential use levels.
- A summary table of the reuse analytical results compared to the Restricted Residential Use SCOs was submitted to the NYSDEC for evaluation and approval.
- A "Request to Import/Reuse Fill Material" form was filed with the NYSDEC project manager for review and approval prior to material reuse on the site.

The Remedial Engineer ensured that procedures defined for materials reuse in this RAWP were followed and that unacceptable material did not remain on-Site. The following also apply to material reuse on Site:

- Concrete crushing or processing on-Site was prohibited, unless NYSDEC had specifically approved on-site processing and reuse of acceptable demolition material.
- Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site was prohibited for reuse on-Site.
- Contaminated on-Site material, including historic fill and contaminated soil, removed for grading or other purposes, was not reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

4.1.3.6 Fluids Management

No dewatering was performed. Some liquids, standing water in the tank excavation, were generated as part of vacuum extraction fluid recovery events, and were handled, transported, and disposed of in accordance with applicable local, State, and Federal regulations.

4.1.3.7 Demarcation

The building foundation serves as the demarcation layer and was placed to distinguish between clean soil and soil exceeding UUSCOs.

4.1.3.8 Backfill from Offsite Sources

Materials proposed for import onto the Site were approved by the Remedial Engineer and NYSDEC and was in compliance with provisions in the RAWP prior to receipt at the Site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) was brought in to establish the designed grades at the Site. Sampling of backfill material was not required as all material brought for backfill was native material from a virgin quarry source with less than 10 % fines and did not require sampling prior to use as backfill on the Site.

Material from industrial sites, spill sites, other environmental remediation sites or other potentially contaminated sites was not imported to the Site.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360 (i.e., soils from another construction Site outside of New York City), but do not meet backfill objectives for this Site, was not imported onto the Site.

4.1.3.9 Erosion and Sedimentation Controls

Barriers and hay bale checks were installed and inspected once a week and after every storm event. Results of inspections were recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs were made immediately.

Accumulated sediments were removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor was repaired immediately with appropriate backfill materials.

Manufacturer's recommendations were followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the RAWP were observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they were inspected to ascertain whether erosion control measures were effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales were installed around the entire perimeter of the remedial construction area, where needed.

4.1.3.10 Contingency Plan

As per the Contingency Plan, as unknown USTs were found during on-Site remedial excavation,

sampling was performed on surrounding soils and collected from sidewalls and excavation bottoms. Chemical analytical work was for full scan parameters (TAL metals, TCL VOCs and SVOCs, TCL pesticides, PCBs, and PFAS "emerging contaminants"). These analyses were not limited to CP-51/Soil Cleanup Guidance parameters where tanks are identified without prior approval by NYSDEC.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work was promptly communicated by phone to NYSDEC's Project Manager. These findings are included in daily reports.

4.1.3.11 Community Air Monitoring Plan

Real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the exclusion zone or work area were performed. Continuous monitoring was performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities included, but were not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs was performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection consisted of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring was be performed during sampling activities. Examples of such situations included groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedances of action levels observed during performance of the Community Air Monitoring Plan (CAMP) were reported to the NYSDEC Project Manager and are included in the Daily Reports.

<u>VOC Monitoring, Response Levels, and Actions</u>

Volatile organic compounds (VOCs) were monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations were measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work was performed using equipment

appropriate to measure the types of contaminants known or suspected to be present. The equipment was calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment was capable of calculating 15-minute running average concentrations, which were compared to the levels specified below.

If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeded 5 parts per million (ppm) above background for the 15-minute average, work activities were temporarily halted and monitoring continued. If the total organic vapor level readily decreased (per instantaneous readings) below 5 ppm over background, work activities were able to resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persisted at levels in excess of 5 ppm over background but less than 25 ppm, work activities were halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities were able to resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, was below 5 ppm over background for the 15-minute average.

If the organic vapor level was above 25 ppm at the perimeter of the work area, activities were shutdown.

All 15-minute readings were recorded and made available for NYSDEC personnel to review. Instantaneous readings, if any, used for decision purposes were also recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations were monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring was performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment was equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration was visually assessed during all work activities.

If the downwind PM-10 particulate level was 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust was observed leaving the work area, then dust suppression techniques were employed. Work could continue

with dust suppression techniques provided that downwind PM-10 particulate levels did not exceed 150 mcg/m3 above the upwind level and provided that no visible dust was migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels were greater than 150 mcg/m3 above the upwind level, work was stopped, and a re-evaluation of activities initiated. Work was able to resume provided that dust suppression measures and other controls were successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and was preventing visible dust migration.

All readings were recorded and made available for NYSDEC personnel to review.

Exceedances observed in the CAMP were reported to NYSDEC and NYSDOH Project Managers and included in the Daily Reports.

4.1.3.12 Odor, Dust and Nuisance Control Plan

4.1.3.12.1 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-Site. Specific odor control methods to be used on a routine basis will include wetting the Site down with available water supply. If nuisance odors are identified, work will be halted, and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Volunteer's Remedial Engineer, who is responsible for certifying the Final Engineering Report.

All necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils; [add other elements as appropriate]. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close

proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

4.1.3.12.2 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-Site work, will include, at a minimum, the items listed below and will comply with NYSDEC DER-10 Appendix 1B – Fugitive Dust Control:

Dust suppression will be achieved through applying water on haul roads; wetting equipment and excavation faces; spraying water on buckets during excavation and dumping; hauling materials in properly tarped or watertight containers; restricting vehicle speeds to 10 mph; covering excavated areas and material after excavation activity ceases; and reducing the excavation size.

4.1.3.12.3 Other Nuisance

A plan for rodent control will be developed and utilized by the contractor prior to and during Site clearing and Site grubbing, and during all remedial work. A plan will be developed and utilized by the contractor for all remedial work and will conform, at a minimum, to NYCDEP noise control standards.

4.1.5 Storm-Water Pollution Prevention Plan (SWPPP)

The erosion and sediment controls for all remedial construction were performed in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control.

4.1.6 Contractors Site Operations Plans (SOPs)

The Remediation Engineer reviewed all plans and submittals for this remedial project (i.e. those listed above plus contractor and subcontractor submittals) and confirmed that they were in compliance with the RAWP. All remedial documents were submitted to NYSDEC and NYSDOH in a timely manner and prior to the start of work.

4.1.8 Community Participation Plan

The NYSDEC and SNL Yonkers, LLC established a CPP because the opportunity for citizen

participation was an important component of the NYS BCP. The CPP describes how information about the project was disseminated to the Community during the remedial process. As part of its obligation under the NYSDEC BCP, SNL Yonkers, LLC maintained a repository for project documents and provide public notice at specified times throughout the remedial program. This Plan also considered potential environmental justice concerns in the community that surrounds the project Site. Under this CPP, project documents and work plans were made available to the public in a timely manner. Public comment on work plans was strongly encouraged during public comment periods. Work plans were not approved by the NYSDEC until public comment periods had expired and all comments were formally reviewed. An explanation of cleanup plans in the form of a public meeting or informational session were available upon request to the NYSDEC's project manager assigned to this Site, Mr. Matthew Hubicki, who could be contacted about these issues or any other questions, comments or concerns that arose during the remedial process at (518) 402-9605.

A certification of mailing was sent by the SNL Yonkers, LLC to the NYSDEC project manager following the distribution of all Fact Sheets and notices that included: (1) certification that the Fact Sheets were mailed, (2) the date they were mailed; (3) a copy of the Fact Sheet, (4) a list of recipients (contact list); and (5) a statement that the repository was inspected on (specific date) and that it contained all of applicable project documents. All fact sheets will be translated into Spanish.

No changes were made to approved Fact Sheets authorized for release by NYSDEC without written consent of the NYSDEC. No other information, such as brochures and flyers, were included in the Fact Sheet mailing.

4.2 REMEDIAL PROGRAM ELEMENTS

4.2.1 Contractors and Consultants

Contractor/Consultant	Responsibility	Contact
D-Best Industries	Demolition / Construction	Philip Lepine 516-578-0943 pl@dbestny.com
Park East Construction	Construction Management	George Caputo 516-805-4223 gcaputo@parkeastconstruction.com
Brookside Environmental	Tank / Lift Removal Contractor	Richard Taylor 516-377-6300 rtaylor@brooksideweb.com
PAL Environmental Services	SSDS / Monitoring Well Installation	Mike Baldwin 516-779-5234 mbaldwin@palcorp.com
Control Point Associates	Survey Contractor	John Kupst 908-668-0099 jkupst@cpasurvey.com
Impact Environmental Engineering and Geology PLLC	Environmental Consultant	Christopher Connolly 516-983-0210 cconnolly@impactenvironmental.com
Impact Environmental Engineering and Geology PLLC	Certifying Engineer	Brad Summerville 856-625-9229 bsummerville@impactenvironmental.com
Knauf Shaw LLP	Environmental Attorney	Linda Shaw 585-414-3122 lshaw@nyenvlaw.com
New Star Soil Logistics	Soil Broker	Doug Birkmire 631-786-0051 dbirkmire@newstarsoil.com
Frank G. Relf Architect, P.C.	Architect	Frank G. Relf 631-271-4432 fgr@fgrelf.com
Laboratory Data Consultants, Inc	Data Usability Summary Reports and Validation	Pei Geng 760-827-1100 pgeng@lab-data.com
Phoenix Environmental Laboratories	Certified Laboratory	Michael Lapman 917.449.0850 michael@phoenixlabs.com
Pace Analytical Services	Certified Laboratory	Marty Vitanza 508-439-5155 Marty.Vitanza@pacelabs.com
Regenesis	ORC Advanced Product	Elliot Maker 401-474-2708 Emaker@regenesis.com

4.2.2 Site Preparation

A pre-construction meeting was held with the volunteer (SNL Yonkers LLC), NYSDEC, IEEG, and D-Best Industries in October 2021.

Prior to commencing remedial actions, the Demolition/Construction contractor completed mobilization and site preparation for remedial activities beginning on September 15, 2022, as indicated below:

- Identified the location of all aboveground and underground utilities (e.g., power, gas, water, sewer, telephone), equipment, and structures as necessary to implement demolition and the remedy.
- Obtained agency approvals and permits, including City of Yonkers Department of Buildings and New York State Department of Transportation (NYSDOT) permits (e.g., perimeter fencing, signs, sidewalk usage etc.).
- Security fencing was installed between September 16 and 18, 2022, in accordance with construction specifications.
- Construction equipment was mobilized to the Site on September 20, 2022, and slab removal and excavation began on October 3, 2022.

Documentation of agency approvals required by the RAWP is included in **Appendix E**. Other non-agency permits relating to the remediation project are provided in **Appendix F**.

All SEQRA requirements and all substantive compliance requirements for attainment of applicable natural resource or other permits were achieved during this Remedial Action.

A NYSDEC-approved project sign was erected at the project entrance and remained in place during all phases of the Remedial Action.

4.2.3 General Site Controls

Site Security

Security of the Site was maintained by a construction fence erected around the perimeter of the Site with a gate at the site entrance/egress point, which was locked at the end of each workday. Warning tape and/or barricades were placed around open excavations. Job Site recordkeeping included a daily sign-in sheet, daily air monitoring logs, waste manifests, accident reports, field notes, and photographic documentation. All project forms, logs and receipts were filed on-Site,

in dedicated binders kept in the construction trailer. Field notes and observations were recorded in a dedicated project field book which remained in the construction trailer. Photographic documentation was uploaded on a daily basis to a laptop computer which remained in the possession of the EP or Contractor.

The following general Site controls were established at the BCP Site to ensure the safety of on-Site workers, remedial personnel, nearby residents, and potential trespassers; and to minimize off-Site and on-Site impacts of remedial activities.

Personal Protective Equipment

Construction activities were performed in modified Level D Personal Protective Equipment (PPE), which included steel-toed work boots, hard hats, safety glasses, long sleeved shirts, gloves, and high-visibility clothing (e.g., reflective vest). Job Site recordkeeping for all remedial work was appropriately documented by IEEG. Documented activities included daily inspections to verify conformance with the RAWP, health and safety monitoring and material tracking. These records were maintained on-Site by IEEG during the performance of the Remedial Action and were available for review by the NYSDEC.

Soil Screening Methods

Soil screening was performed by the project EP during excavation of all on-Site soil during waste characterization sampling and/or disposal. Soil stockpiles were covered with appropriately anchored tarps until waste characterization results were obtained (if in-situ sampling was not already performed), disposal facility arrangements were made, and soil load out occurred. Soil segregation was performed based on observed field evidence of contamination and waste classification analysis. All stockpiled materials were placed on double 6-mil polyethylene sheeting and were kept covered with appropriately anchored sheeting when material was not being added or removed and at the end of each workday.

4.2.4 Nuisance controls

The SMMP specified that dust would be controlled by wetting the work area. Dust generation was minimal during most excavation work, and water was sprayed in the areas of work as needed based on the CAMP readings or visual confirmation or odor detection.

Nuisance odors, primarily related to temporarily stockpiled soils and loading operations, were

minimized by covering stockpiled soils when such piles remained overnight or longer.

The selected truck route and vehicular speed minimized traffic on neighborhood streets and followed the NYCDOT-approved truck routes. Sidewalks and roadways surrounding the Site were cleaned as necessary.

The only complaints associated with the Site occurred on May 29, 2025, during pump-out of residual gasoline from the four (4) 550-gallon USTs. The issue was a missing carbon filtration unit on the pump truck's vapor/emissions vent. Complaints were received by, and directed through, the Yonkers Fire Department. Work was halted immediately, a carbon filtration unit was installed on the pump truck, and activities resumed the following day with no further complaints.

4.2.5 CAMP results

Continuous air monitoring was performed on a daily basis at the site boundaries (or work zone boundaries) for dust and VOCs in accordance with the CAMP. Two (2) TSI DUSTRAK DRX and MiniRae 3000 CAMP monitoring units, one (1) upwind unit and one (1) downwind unit were deployed for real-time air monitoring of VOCs and particulate levels with instrumentation and visual monitoring of fugitive dust migration at the perimeter of the exclusion zone or work area. Fifteen-minute running averages were calculated from the data recorded in each respective PID or DustTRAK, and averages were compared to the action levels prescribed in the CAMP.

Volatile organic compound (VOC) concentrations exceeding the 15-minute CAMP action level were recorded during gasoline-pumping activities on May 29, 2025, as discussed in Section 4.2.4. Aside from this occurrence, no exceedances of CAMP action levels were reported during soil excavation. On several occasions, CAMP monitoring was temporarily suspended due to inclement weather (primarily heavy rain), during which instruments could have been damaged or produced unreliable readings. Electronic copies of all CAMP field data sheets are provided in **Appendix G**.

4.2.6 Reporting

In accordance with the NYSDEC-approved RAWP, daily status reports were prepared and submitted to the NYSDEC and the project team. Daily reports included a listing of contractors, personnel and equipment on-Site, description of activities performed by contractors, CAMP monitoring results, materials imported/exported to/from the Site, a photographic log of the daily activities, and planned activities for the following day.

Monthly project status reports were prepared by the IEEG Project Manager and distributed to NYSDEC and project team following each reporting period. Monthly reports included a summary

of the activities performed during the month and those anticipated during the next month, a summary of materials transported on/off the Site during the month, description of percentage of remedial action completion, sampling results, and delays in the schedule.

All daily and monthly reports are included in electronic format in **Appendix H**. The digital photo log required by the RAWP is included in electronic format in **Appendix I**.

4.3 CONTAMINATED MATERIALS REMOVAL

Excavation and off-site disposal of soils from the Site that exceeded the RRSCO, listed in 6NYCRR Part 375-6, Table 375-6.8(b), were completed as part of the IRM hotspot removal, UST closure, and hydraulic lift removal activities, as detailed in the IRM CCR (see **Appendix J**). Refer to **Plates 3 through 6** for a Hotspot Removal, UST Closure, and Lift Removal Maps. It was understood, based on the RI results, that no other material would exceed the RRSCOs at the Site.

However, during post-IRM construction related excavations, four (4) 550-gallon former gasoline USTs were encountered. Materials surrounding and beneath these USTs (above shallow bedrock) were found to be impacted with petroleum compounds. This impacted material was over-excavated, segregated and stockpiled on approved polyethylene sheeting, covered overnight, and sampled for waste characterization and disposal facility approval purposes.

Additional material was removed to support the redevelopment of the Site. The soil and materials management on-Site and off-Site was conducted in accordance with the SMMP.

Between December 19, 2022, and July 15, 2025, a total of 2,075.63 tons of contaminated soil/fill was removed from the Site. Of this total:

- 167.72 tons were removed during IRM hot-spot excavations (HS-1, HS-3, HS-10a): 156.80 tons transported to and disposed of at Impact Reuse & Recovery Center (IRRC), 1000 Page Avenue, Lyndhurst, NJ (NJDEP #CBG170002), and 10.92 tons transported to and disposed of at Clean Earth of Carteret, LLC (CEC), Carteret, NJ.
- 87.16 tons were removed during IRM hydraulic-lift removal activities and transported to and disposed of at CEC, Carteret, NJ.
- 118.05 tons were removed during IRM UST removal/closure (5,000-gallon former fuel oil UST) and transported to and disposed of at IRRC, Lyndhurst, NJ.

- 142.72 tons of gasoline-impacted material generated during removal/closure of the four (4) 550-gallon former gasoline USTs were transported to and disposed of at Pure Soil Technologies, Inc., Jackson Township, Ocean County, NJ (NJDEP #CBG190003).

In total, 515.65 tons were removed as part of IRM and RAWP remedial activities, with only the gasoline-impacted materials from the four UST removals generated under the approved RAWP.

A list of the soil cleanup objectives (SCOs) for the contaminants of concern is provided in **Table 1**.

4.3.1 Gasoline Impacted Materials from Four (4) UST Excavation

As part of the Remedial Action, four (4) former gasoline USTs were removed and impacted materials excavated, and soil transported to a licensed disposal facility. A post tank removal excavation location map, showing dimensions and endpoint sample locations, is included in **Plate 13.Soil**

4.3.1.1 Gasoline Impacted Material Disposal Details

Between July 9 and July 15, 2025, a total of 142.72 tons of material was generated from the tank grave over-excavation. Excavation was completed using a track mounted mini excavator to depths of approximately 3-5 ft bgs, at which point bedrock was encountered. The excavation area was approximately 200 sq ft. The gasoline contaminated material was transported to and disposed of at Pure Soil Technologies, Inc., of Jackson Township, Ocean County, NY (NJDEP #CBG190003). See **Appendix L** for copies of the disposal manifests.

On June 12, 2025, IEEG staff collected one (1) grab and one (1) composite samples from the stockpile of gasoline contaminated soils. On June 26, 2025, IEEG completed and submitted a Material Characterization Report for Pure Soil Technologies, Inc., along with a copy of the laboratory data and a waste characterization sample map. On June 27, 2025, Pure Soil Technologies, Inc., issued a letter to Mr. Jim Sherrier of the soil broker New Star Logistics, approving the disposal of up to 750 tons of gasoline impacted material from the Site. See **Appendix K** for copies of the facility applications and approvals.

Table 2 shows the total quantities of each category of material removed from the site and the disposal locations. A summary of the samples collected to characterize the waste, and associated analytical results are summarized on **Tables 3a** through **3e.**

4.3.2 Gasoline Product and Impacted Groundwater from Four (4) UST Excavation

As part of the Remedial Action, four (4) former gasoline USTs were removed from the Site. During the removal and closure of the USTs, residual gasoline product was removed from the tanks using a pump truck, tank bottom sludges were placed in 55-gallon steel drums, and a vacuum enhanced fluid recovery (VEFR) event was performed to extract impacted groundwater from the open excavation. These materials were transported to a licensed disposal facility.

4.3.2.1 Gasoline Product and Impacted Groundwater Disposal Details

Between May 29 and May 30, 2025, a total of approximately 1,845-gallons of residual gasoline product was generated from the tank closure and removal activities, along with one (1) 55-gallon drum of tank bottom sludge. The gasoline product and bottoms were transported to and disposed of at Advanced Waste and Water Technology of Farmingdale, NY. See **Appendix M** for copies of the disposal manifests associated with the tank closure.

On June 2, 2025, IEEG staff collected one (1) grab sample from the standing groundwater present within the tank excavation, as directed by NYSDEC. The laboratory data was sent to and approved by Advanced Waste and Water Technology of Farmingdale, NY, and on June 17, 2025, Brookside Environmental performed a VEFR event within the open excavation, and a total of 432-gallons of impacted groundwater were removed and transported to / disposed of at Advanced Waste and Water Technology of Farmingdale, NY.

Table 4 shows the total quantities of each category of material removed from the site and the disposal locations.

4.3.3 On-Site Reuse

On June 9, 2025, IEEG collected samples from the locations of two (2) proposed utility trenches, each approximately 50-linear feet long, on the first floor of the building, to assess whether this material could be reused onsite for backfill once excavated. As per DER-10 protocols, two (2) grab samples (one from each proposed trench, designated T1-Grab and T2-Grab) and two (2) composite samples (one from each proposed trench, and comprising of five composited individual samples , designated T1-Grab and T-2 Grab) were collected and submitted for laboratory analysis of NYSDEC Part 375 VOCs, SVOCs, Metals, PCBs, Pesticides/Herbicides, and Emerging

Contaminants (including NY-List PFAS/PFOA and 1,4-dioxane).

On June 24, 2025, IEEG completed the NYSDEC Request to Import/Reuse Fill or Soil form and submitted along with the above laboratory analysis and a sample location map, requesting to reuse approximately 50-100 cubic yards of this material. Laboratory data showed trivalent chromium slightly exceeding UUSCOs, and acetone above UUSCOs. No other VOCs, SVOCs, Metals, Pesticides/Herbicides, PCBs, or PFAS/PFOAs were detected above UUSCOs. On the same day NYSDEC Project Manager Matthew Hubicki sent email correspondence approving the reuse of this material. See **Appendix E**.

On July 9, 2025, following the application of Regenesis ORC Advanced into the exposed gasoline impacted groundwater within the former tank excavation, a total of approximately 50-cubic yards of material approved for reuse from the utility trenches was used to partially backfill the former tank excavation. On July 11, 2025, the remaining 50-cubic yards was utilized to backfill the utility trenches. See **Plate 14** for locations of reuse soil generation and placement.

4.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

4.4.1 Post Tank Removal Endpoint Sampling

On June 18, 2025, following the removal of the four (4) 550-gallon former gasoline USTs, IEEG collected one (1) bottom and four (4) sidewall confirmatory endpoint samples in accordance with NYSDEC DER-10 sampling guidance. Each sample was collected with a decontaminated stainless-steel hand auger, was placed in laboratory supplied certified clean glassware, placed on ice, and transported to an ELAP Certified lab for analysis of NYSDEC CP-51 list VOCs and semi-volatile organic compounds (SVOCs).

Results of the end point and side wall samples indicated the following:

- Elevated concentrations of multiple petroleum related VOCs (including 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, ethylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, p-isopropyltoluene, toluene, and total xylenes), along with the SVOCs dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene, were found in excess of their respective NYSDEC CP-51 Standards in sample “Tank Bottom”.
- Elevated concentrations of 1,2,4-trimethylbenzene were detected in Tank Sidewall North-A, Tank Sidewall North B, and Tank Sidewall South B, above CP-51 Standards.

- 1,3,5-trimethylbenzene was detected in Tank Sidewall South B above CP-51.
- Benzene was detected in Tank Sidewall North A and Tank Sidewall South A above CP-51.
- Ethylbenzene was detected in Tank Sidewall North A, Tank Sidewall North B, and Tank Sidewall South B above CP-51.
- Isopropylbenzene was detected in Tank Sidewall South B above CP-51.
- Toluene was detected in Tank Sidewall North A and Tank Sidewall South B above CP-51.
- Total Xylenes were detected in all four (4) sidewall samples above CP-51.

Based on a review of the laboratory data, residual contamination above Track 2 RRSCOs was still present at the time of this sampling. However, due to the abundant presence of bedrock, primarily at the base of the tank excavation, additional over-excavation was not deemed feasible. In addition, due to the presence of shallow groundwater, and the saturated nature of the soil endpoint samples, the known groundwater impacts have likely impacted the results of the soil sample analysis. Finally, additional remedial actions, including in-situ chemical remedial techniques were implemented following the collection of these endpoint samples, which will likely have improved the characteristics of the surrounding soils. See **Section 3.2.3** for details of the additional remedial actions.

A table and figure summarizing all end-point sampling is included in **Table 6** and **Plate 10,** respectively, and all exceedances of SCOs are highlighted.

Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in **Appendix M** and associated raw laboratory data is provided electronically in **Appendix N**.

4.4.2 Post Ramp Excavation Endpoint Sampling

On July 14, 2025, under direction from NYSDEC, IEEG collected two endpoint samples following the completion of excavation of the former ramp area, prior to placement of the ¾" virgin stone sub-base and vapor barrier. The two (2) samples, designated EP-1-RAMP and EP-2-RAMP were collected from locations advised by NYSDEC Inspector Tracey Garland. Each sample was collected using a decontaminated stainless-steel hand auger, was placed in laboratory supplied certified clean glassware, placed on ice, and transported to an ELAP Certified lab for analysis of NYSDEC Part 375 List VOCs, SVOCs, PCBs, Metals, and Pesticides.

Based on a review of the analysis, the pesticide 4,4'-DDT (3.6 ug/kg) was the only compound detected in exceedance of its Part 375 UUSCOs. Other compounds were detected, but all below UUSCOs.

A table and figure summarizing all end-point sampling is included in **Table 7** and **Plate 11,** respectively, and all exceedances of SCOs are highlighted.

Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in **Appendix M** and associated raw laboratory data is provided electronically in **Appendix N**.

4.4.3 Post Tank Removal Standing Groundwater Sampling

On June 2, 2025, in accordance with DER-10 protocols, due to the abundance of standing groundwater within the final tank excavation, IEEG collected a single sample of the standing groundwater using a clean acetate bailer. The sample, designated Tank-GW-1, was transferred directly into laboratory provided clean glassware, and was submitted to Phoenix Environmental Laboratories of Manchester CT for analysis of TCL VOCs and TCL SVOCs (USEPA Methods 8260 and 8270 respectively).

Based on a review of the data several VOCs and SVOCs were detected at concentrations exceeding their respective NYSDEC Ambient Water Quality Standards (AWQS), as follows:

- 1,2,4-trimethylbenzene (2,200 ug/kg)
- 1,2-dichloroethane (250 ug/kg)
- 1,3,5-trimethylbenzene (740 ug/kg)
- Benzene (5,800 ug/kg)
- Ethylbenzene (1,600 ug/kg)
- Isopropylbenzene (220 ug/kg)
- Naphthalene (780 ug/kg)
- N-butylbenzene (130 ug/kg)
- N-propylbenzene (330 ug/kg)
- O-xylene (1,900 ug/kg)
- P-isopropyltoluene (180 ug/kg)
- Sec-butylbenzene (91 ug/kg)
- Toluene (8,500 ug/kg)
- Total xylenes (6,000 ug/kg)
- 2-methylnaphthalene (260 ug/kg)
- Benzo(a)anthracene (0.09 ug/kg)
- Benzo(a)pyrene (0.07 ug/kg)
- Benzo(b)fluoranthene (0.08 ug/kg)

- Benzo(k)fluoranthene (0.07 ug/kg)
- Chrysene (0.18 ug/kg)
- Indeno(1,2,3-cd)pyrene (0.06 ug/kg)

The results indicated significant gasoline related impacts in the groundwater proximal to the former 550-gallon gasoline USTs. It should be noted that additional remedial actions, including in-situ chemical remedial techniques, were implemented following the collection of this standing groundwater sample, which will likely have improved the characteristics of the onsite groundwater. See Section 4.4.5 for details of the additional remedial actions.

A table and figure summarizing all end-point sampling is included in **Table 8** and **Plate 12,** respectively, and all exceedances of SCOs are highlighted.

Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in **Appendix M** and associated raw laboratory data is provided electronically in **Appendix N**.

4.4.4 Post Remedial Monitoring Well Installation

On September 12 and 15, 2025, IEEG oversaw the installation of five (5) new permanent groundwater monitoring wells designated MW-1B, MW-2B, MW-3B, MW-4B, and MW-6B. Prior to the installation, IEEG staff walked the Site to determine if any former monitoring wells were still present, and if so, if they were viable to be sampled as part of the post remedial action groundwater sampling events. IEEG determined that three (3) monitoring wells, MW-12, MW-13, and MW-14, located in the sidewalk along the southeast corner of the building, remained. Each of these three (3) wells, installed by others as part of a previous environmental investigation, were probed with an electronic depth to water meter. All three (3) wells were determined to have been undamaged by the ongoing remedial/construction work and were able to be sampled as part of this event. Furthermore, it was concluded that one of the proposed new IEEG monitoring wells, MW-5B, was not needed, due to its proximity to MW-12/13/14 (further details can be found in Section 4.10, Deviations from the RAWP).

The five (5) new permanent monitoring wells were installed using both a track-mounted GeoProbe 6700, and in the case of MW-4B (which was in a more challenging area to access), a remote GeoProbe 420M. Each well borehole was advanced to either 5 feet beyond the

encountered groundwater depth, or to bedrock. Well depths ranged from 8-feet bgs to 17-feet bgs (Well Construction Logs can be found in **Appendix P**. Once the terminal depth was reached the well materials consisting of schedule 40 PVC 0.001 slotted screen (transecting the groundwater table) and schedule 40 solid PVC riser was installed in the borehole. A sand filter pack was then placed around the section of slotted PVC screen to a minimum of 2 feet above the screen depth, and the well was finished with a bentonite grout plug to 1-foot bgs, a locking J-Plug, a stainless-steel road box, and concrete patch at grade. Monitoring Wells Locations can be found in **Plate 13**.

4.4.5 Post Remedial Groundwater Sampling

On September 19, 2025, IEEG mobilized to the Site to gauge, purge, and sample the three (3) pre-existing and five (5) newly installed monitoring wells. Firstly, each of the eight (8) wells were gauged for depth to water, depth to bottom, and if present, depth to product, using an electrical depth to water meter and interface probe. The results of the pre-sample well gauging are presented in the table below:

MW Identifier	MW Diameter (inches)	Depth to Bottom (feet)	Depth to Water (feet)	Pre-Sample Purge Quantity (gallons)
MW-1B	2	9.92	NA*	NA*
MW-2B	2	10.21	4.081	1
MW-3B	2	8.06	NA*	NA*
MW-4B	1	17.39	11.15	10
MW-6B	2	16.94	12.10	10
MW-12	1	18.23	10.36	10
MW-13	2	17.91	10.52	10
MW-14	1	18.62	10.18	10

*Wells were found dry, thus the well was not purged or sampled

Using a peristaltic groundwater pump connected to clean polyethylene tubing, the viable wells were purged of a minimum of three well volumes through a Granulated Activated Carbon (GAC) Bucket. The flow rate did not exceed 1 liter per minute. During purging the tubing was connected to a Horiba water quality meter flow-through cell, and water quality measurements were recorded every 3-5 minutes, in accordance with NYS Low Flow Sampling protocols, until the turbidity read less than 50 NTUs, and other parameters had stabilized for three consecutive readings. Field logs can be found in **Appendix Q**.

Once the parameters stabilized, the Horiba was disconnected, and groundwater samples were directly placed in laboratory supplied clean glassware, stored on ice, and transported by laboratory courier, under proper chain of custody procedures, to Pace Analytical Services of Westborough MA (and ELAP Certified Laboratory) for analysis of TCL VOCs (8260) and TCL SVOCs (8270). As shown in the table above, two wells (MW-1B and MW-3B) did not contain any groundwater, thus could not be purged, nor samples analyzed.

The table below provides a summary of the compounds which exceed the NYSDEC AWQS:

LOCATION			MW-4B		MW-6B		MW-14		MW-12		MW-2B	
SAMPLING DATE			9/19/2025		9/19/2025		9/19/2025		9/19/2025		9/19/2025	
LAB SAMPLE ID			L2559574-01		L2559574-02		L2559574-03		L2559574-04		L2559574-05	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER	
SAMPLE DEPTH (ft.)												
	NY-AWQS	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Semivolatile Organics by GC/MS												
Bis(2-ethylhexyl)phthalate	**5**	ug/l	3	U	3	U	3	U	**38**		3	U
Phenol	**1**	ug/l	**5**	U	**2.3**	J	**6.1**		**5**	U	**1.3**	J
Naphthalene	**10**	ug/l	0.07	J	**31**		**13**		**15**		3	
Benzo(a)anthracene	**0.002**	ug/l	**0.1**	U	**0.04**	J	**0.1**	U	**0.04**	J	**0.03**	J
Volatile Organics by GC/MS												
Benzene	**1**	ug/l	**1.8**		**230**		0.5	U	**5.9**		**2.6**	
Toluene	**5**	ug/l	2.5		**36**		2.5	U	**8.8**		1.4	J
Ethylbenzene	**5**	ug/l	**15**		**99**		2.5	U	**21**		**8.8**	
p/m-Xylene	**5**	ug/l	**45**		**120**		2.5	U	**65**		**24**	
o-Xylene	**5**	ug/l	**11**		**27**		1.4	J	**37**		4.8	
n-Butylbenzene	**5**	ug/l	**0.88**	J	**8.5**		2.5	U	**5.4**	J	2.5	U
sec-Butylbenzene	**5**	ug/l	0.93	J	**11**		2.5	U	**8.5**		2.5	U
Isopropylbenzene	**5**	ug/l	3.6		**73**		2.5	U	**40**		1.4	J
p-Isopropyltoluene	**5**	ug/l	1.5	J	**14**		2.5	U	**13**		2.5	U
Naphthalene	**10**	ug/l	4.1		**56**		2.5	U	**42**		1.6	J
n-Propylbenzene	**5**	ug/l	4		**80**		2.5	U	**40**		1.5	J
1,3,5-Trimethylbenzene	**5**	ug/l	**8**		**27**		2.5	U	**68**		2.4	J
1,2,4-Trimethylbenzene	**5**	ug/l	**22**		**120**		2.5	U	**210**		**7.4**	
1,2,4,5-Tetramethylbenzene	**5**	ug/l	1.2	J	**23**		2	U	**13**		2	U
* Comparison is not performed on parameters with non-numeric criteria.												
U = Non Detect												
AWQS = NYSDEC Ambient Water Quality Standards												
ug/L = micrograms per liter												
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards & Guidance Values Criteria per Standards & Guidance Values including all addenda through February 2023.												

Based on a review of the laboratory data, the monitoring wells located south and southeast from the property exhibit the highest concentrations of petroleum related VOCs, however, MW-14, located between MW-12 and MW-6B, was mostly non-detected for the same compounds. Furthermore, when compared to the results of the post 5,000-gallon UST removal ground water sampling, many of the compounds have decreased, some by more than half. See **Table 9**.

IEEG will attempt to perform a second round of post remedial groundwater sampling in the month of October, 2025, to further determine the effectiveness of the remedy.

4.5 IMPORTED BACKFILL

Between December 20, 2022 and July 11, 2025, a total of 818.68 tons of ASTM No. 57 ¾-inch virgin quarry bluestone was imported to the Site from Tilcon Mount Hope Quarry, Mt. Hope, NJ. This material was primarily imported for use as the 6-inch-thick gas permeable layer beneath the first and second floor slab-on-grade portions of the building, and secondarily to backfill the IRM-associated hotspot excavations and the remainder of the former gasoline tank excavation. Per the DER-10, no chemical analysis of this material was required; however, sieve analyses were provided to NYSDEC as part of the Request to Import Material forms dated December 16, 2022, July 20, 2023, and February 19, 2025. In all three cases, NYSDEC approved the use of this material as backfill.

A table listing all sources of imported backfill and corresponding quantities is provided in **Table 10.** Facility documentation, including sieve analysis results , is provided in **Appendix O**. A figure showing the locations where backfill was placed on the Site is shown in **Plate 15**.

4.6 CONTAMINATION REMAINING AT THE SITE

4.6.1 Post IRM Sample Results and Remaining Contamination

Soil and groundwater sampling was performed under three (3) NYSDEC-approved IRM Work Plans:

1) Remedial Investigation/Interim Remedial Measures Work Plan, IEEG, June 20, 2021.
    a. Three (3) bottom and sidewall confirmatory endpoint samples collected following the removal of a 5,000-gallon former fuel oil UST.
    b. Four (4) groundwater samples collected from pre-existing MWs following the UST removal.

No VOCs or SVOCs were detected above CP-51 or RRSCO standards in post-tank-removal endpoint and sidewall soil samples. Several VOCs and SVOCs were detected above NYSDEC AWQS in post-tank-removal groundwater samples.

2) Interim Remedial Measures Work Plan Addendum, IEEG, October 28, 2022.
    a. Four (4) bottom confirmatory endpoint samples collected following the removal of four (4) former hydraulic lift pistons.
    b. Two (2) confirmatory groundwater samples collected from standing groundwater within the hydraulic lift excavation.
    c. One (1) confirmatory sidewall sample collected following the excavation of hot spot HS-1.
    d. Four (4) confirmatory sidewall samples collected following the excavation of hot spot HS-3.
    e. Three (3) confirmatory sidewall samples collected following the initial excavation of hot spot HS-10a, and a further two (2) confirmatory sidewall samples following the additional excavation of hot spot HS-10a.
    f. Collection of two (2) additional Remedial Investigation samples, as directed by NYSDEC, SB-21 and SB-22.
    g. Collection of two (2) samples from a suspected trench drain located within the partial basement.
    h. Collection of one (1) sidewall sample from the second-floor northern exposed soils.

No VOCs, SVOCs, or PCBs were detected above CP-51 or RRSCO standards in the post-lift-removal endpoint soil or standing-groundwater samples. Based on endpoint samples collected from metals-impacted hot spots excavated under the original IRM (see June 2025 IRM CCR), elevated metals were reported above proposed RRSCOs at HS-10a, including barium and lead in the northern sidewall sample. Due to the presence of a retaining wall and shallow bedrock, further excavation to the north was not feasible. On April 18, 2023, the NYSDEC Project Manager (Mr. Hubicki) confirmed via phone that no additional remedial excavation was warranted at HS-10a. No metals exceeded RRSCOs in SB-21 or SB-22. No VOCs, SVOCs, metals, PCBs, or pesticides exceeded RRSCOs in the trench-drain samples or in SB-23 (second-floor northern soils).

3) Interim Remedial Measures Work Plan Addendum #2, IEEG, February 4, 2025.
    a. Collection of five (5) individual grab samples and two (2) five-point composite samples from the remaining soils on the first and second floor proposed for removal.

No VOCs, SVOCs, metals, PCBs, or pesticides were detected above RRSCO standards in the soil verification samples.

4.6.2 Post Tank Removal Sample Results and Remaining Contamination

Additional soil and groundwater sampling was performed under one (1) Petroleum Bulk Storage Tank Removal/In-Situ Remediation Work Plan:

1) Petroleum Bulk Storage Tank Removal / In-Situ Remediation Work Plan, IEEG, June 3, 2025.
    a. One (1) sample collected from standing groundwater within the former gasoline tank excavation.
    b. One (1) bottom and four (4) sidewall confirmatory end point samples collected following the removal of the four (4) 550-gallon gasoline USTs.

Based on a review of the laboratory analysis, multiple petroleum related VOCs and SVOCs were detected above RRSCO standards in the endpoint samples, and above AWQS in the standing groundwater sample. This elevated contamination is contained to the southeast corner of the building, in the area of the former gasoline tanks.

4.6.3 Post Remedial Action Sample Results and Remaining Contamination

Concluding soil and groundwater sampling was performed under the NYSDEC Approved Remedial Action Work Plan:

1) Remedial Action Work Plan, IEEG, July 2023 (Revised April 7, 2025).
    a. Two (2) confirmatory soil endpoint samples collected from the area of the former ramp to confirm achievement of the proposed RRSCOs.
    b. Collection of two rounds (one in September 2025, and one in November 2025) of post-remedial groundwater data from the three (3) pre-existing and five (5) newly installed permanent monitoring wells.

Based on the post remedial endpoint samples, designated EP-1-Ramp and EP-2-Ramp, no VOCs, SVOCs, metals, or PCBs were detected at concentrations above their respective UUSCOs. One pesticide, 4,4'-DDT, was found at a concentration (3.6 ug/kg) marginally above the UUSCO (3.3 ug/kg), but below the RRSCOs for the project. Based on the results of the post remedial groundwater sampling several petroleum related VOCs remain in groundwater beneath the building, but at moderate concentrations above their respective NYSDEC AWQS, but which appear to be decreasing since the application of the ORC Advanced remedial product. An additional sampling event is proposed for October 2025.

4.6.4 Demarcation Layer

The demarcation layer employed at the site is the vapor barrier and composite cover/cap system, which encompasses the entire footprint of the building. Based on the data collected during the above IRMs and Work Plans, minor exceedances of UUSCOs are present directly below the demarcation layer across the Site in the form of primarily heavy metals. Directly below the demarcation layer in the southeast portion of the site remains elevated concentrations of petroleum related VOCs and SVOCs above RRSCOs, which have been excavated to the extent practicable, and have been subsequently treated with an in-situ remedial product (Regenesis ORC Advanced) and capped. Based on the results of the post remedial groundwater sampling it appears that VOC concentrations in groundwater have decreased since the prior sampling event in 2023.

Tables 6 and 7 and **Plates 10 and 11** summarize the results of all soil samples remaining at the site after completion of Remedial Action that exceed the Track 1 (unrestricted) SCOs.

Plate 16 summarizes the results of all soil samples remaining at the site after completion of the remedial action that exceed the SCOs for unrestricted use of the site.

Since contaminated soil and groundwater remains beneath the site after completion of the Remedial Action, Institutional and Engineering Controls are required to protect human health and the environment. These Engineering and Institutional Controls (ECs/ICs) are described in the following sections. Long-term management of these EC/ICs and residual contamination will be performed under the Site Management Plan (SMP) approved by the NYSDEC.

4.7 SOIL COVER / CAP SYSTEM

Exposure to remaining contamination in soil/fill at the site is prevented by a cover and cap system placed across the Site. This cover system consists of a minimum of 6 inch layer of ASTM No. 57 compliant ¾-inch virgin quarry bluestone, and 6- to 12-inch concrete building slabs. **Plate 17** shows the as-built cross sections for each remedial cover type used on the Site. **Plate 18** shows the location of each cover type built at the Site. An Excavation Work Plan, which outlines the procedures required in the event the cover system and/or underlying residual contamination are disturbed, is provided in Appendix A of the SMP.

4.8 GREEN REMEDIATION EVALUATION SUMMARY

4.8.1 Waste Generation

Approximately 515.65 tons of non-hazardous soil was disposed of offsite as part of this remedial action. Disposal facilities in close proximity to the Site were utilized to minimize truck emissions and fuel consumption wherever possible. Soil reuse onsite was implemented to the degree possible as part of this remedial action, to further minimize greenhouse gas emissions.

4.8.2 Energy Usage

The onsite non-remedial SSDS utilizes electricity for operation of two roof mounted blowers.

4.8.3 Emissions

The SSDS releases vapor-phase emissions from two blowers located on the roof of the new building. The emissions from the blowers are diluted with ambient air above the roof, and the

exhaust locations are in compliance with all local, State, and Federal laws and regulations. Whenever possible, site visits for inspections, Remedial Action implementation, or sampling were conducted by staff utilizing public transit to reduce fuel usage for transportation.

4.8.4 Water Usage

All water utilized onsite for the purposes of mixing cement, installing piles, mitigating dust emissions, etc., was obtained from existing on-Site potable public water service.

4.8.5 Land and/or Ecosystem

There were no disturbances or restoration of land and/or ecosystems as part of this Remedial Action.

Best management practices (BMPs) were implemented at the Site at all stages of the Remedial Action to reduce the environmental footprint and included the following:

- Utilized nearby sources for backfill import and soil/fill disposal to reduce fuel consumption and associated air emissions from trucks.
- Utilized machinery and equipment that was suitably sized for the Site and could perform multiple tasks whenever possible to avoid field deployment of multiple machines.
- Shut down of machinery and equipment during extended periods of downtime instead of idling the engines to avoid fuel consumption when the machinery is not actively engaged.
- Performed routine, on-time maintenance to all machinery and equipment to ensure fuel efficiency.
- When direct load-out of soil/fill was not possible, soil was stockpiled on minimum double layers of 8-mil poly sheeting and was covered with poly sheeting at the end of each workday to promote dust suppression.
- Sprayed potable water onto surfaces and area of exposed soil, as necessary, to promote dust suppression.
- Emplaced a tight-fitting, opaque cover on all trucks removing soil/fill from the Site to promote dust suppression.
- Utilized piping of sufficient diameter for the SSDS to minimize pressure drops and

resulting need for additional energy to operate blowers.

- Utilized blowers for the SSDS that can accommodate changes in operating requirements as treatment progresses.

In total, two remedial components (soil excavation/cap and cover, and remedial treatment) were evaluated. The majority of the energy use was from the soil excavation activities, of which the offsite transportation accounted for the majority.

Approximately 357.49 tons of CO2 equivalent were generated during the remedy. Of this, approximately 98.42% was associated with soil excavation, while the remaining 0.58% was associated with the remedial treatment. In summary, the majority of the energy use and emissions generated during the Remedial Action are associated with the soil excavation, which has been completed. The climate screen checklist and environmental footprint analysis prepared for the Site is included in **Appendix T**.

4.9 NON-REMEDIAL ENGINEERING CONTROLS

As a preemptive measure, a Sub-Slab Depressurization System (SSDS) was installed as part of construction activities. The SSDS activation/use will be determined by the results of a post-construction/post-remedy soil vapor intrusion study, performed as part of the Site Management Plan, to be conducted during the NYSDOH determined "heating season". This study will determine if 1) the system is required at all, and 2) if required, whether it should be an active or passive system.

The SSDS consists of five (5) suction pit venting zones (VP-1 through VP-5) beneath the approximately 38,000 square foot building footprint. The system includes vertical vapor extraction/collection pits within a continuous gravel envelope placed beneath the foundation slab across the building footprint. Extraction points are connected to transitional header piping on the first floor extending to two (2) risers extend to the second-floor lower perimeter roof. The gravel envelope surrounding each extraction point was backfilled with clean, virgin mined ¾ inch bluestone from Tilcon Mount Hope Quarry, NJ, to grade beneath the vapor barrier which acts as a gas permeable layer. Risers extend to the second-floor lower perimeter roof) through designated chase ways and extends approximately 3 feet above the roof line.

If the SSDS is deemed necessary, and is required to be an active system, as part of the Site

Management Plan, IEEG will perform a startup/shakedown test of the SSDS to ensure adequate flow rates and radius of influence (ROI). **Appendix R** provides the P.E.-certified as-built suction-pit SSDS layout and design details. If an active SSDS is required, IEEG will apply for and obtain the associated Westchester County Department of Health (WCDOH) operational permits and verify if.

Procedures for monitoring, operating, and maintaining the active SSDS, if required, will be provided in the Operation and Maintenance Plan in Section 4 of the SMP. A Monitoring Plan will also address inspection procedures that would be required after any severe weather condition has taken place that may affect on-site ECs.

4.10 INSTITUTIONAL CONTROLS

The Site remedy requires that an Environmental Easement be placed on the property to (1) implement, maintain and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to Restricted Residential uses only.

The environmental easement for the Site was executed by the Department on April 1, 2024, and recorded with the Westchester County Clerk on April 30, 2024. The County Recording Identifier is 631933465. A copy of the easement and proof of filing are provided in **Appendix B**.

4.11 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

Deviation #1

The RAWP did not require additional confirmatory sampling because remedial excavations and associated endpoint sample had already been completed under the NYSDEC-approved IRM and Tank Removal Work Plans. However, during RAWP implementation, four (4) previously unknown 550-gallon former gasoline tanks were uncovered in the ramp area, along with evidence of gross contamination. In response, NYSDEC requested two (2) confirmatory endpoint samples from the base of construction-related excavations in the former gasoline tank area (ramp), to ensure no gross contamination remained.

Samples EP-1-Ramp and EP-2-Ramp were analyzed for Full Part 375 VOCs, SVOCs, Metals, PCBs, and Pesticides. Aside from 4,4'-DDT, no analytes were detected at concentrations above their respective RR SCOs. This deviation is protective of public health and the environmental by confirming the removal of contaminated materials from the Site.