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Part I: Primary Recipient*: REM, PCB or LUST (* required)

For Remediation documents:	For PCB/LUST documents:
Primary Program*: Voluntary Remediation	UST Facility ID: (if applicable)
Rem ID*: 12390	Spill Case Number: (if known)

Part II: Site Information

Site Name*: Rockville Former Manufactured Gas Plant
Site Address*: 13 Maple Street
City/Town*: Rockville, Vernon State: CT Zip Code: 06066

Secondary Programs (complete as many as applicable for this document):

Program: Significant Environmental Hazard	Project ID: 13641
Program: Select Secondary Program	Project ID:
Program: Select Secondary Program	Project ID:
Program: Select Secondary Program	Project ID:

Provide Project ID for each secondary program if it is known.
Each program has a unique ID (i.e. Rem ID, Spill Case #, UST Facility ID, etc.)

Part III: Document Information (document type required for appropriate program[s] only)

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Part IV: Submitter Information

Name*: Jeffrey S. Holden, P.E., LEP
E-mail*: jholden@geiconsultants.com
Name of company/business this document is being submitted on behalf of: *
The Connecticut Light & Power Co. dba Eversource



GEI Consultants

Consulting
Engineers and
Scientists

2022 Annual Report
Rockville Former MGP Site

13 Maple Street, Vernon, Rockville, CT 06066

Submitted to:
Eversource Energy Service Company
107 Selden Street
Berlin, CT

Submitted by:
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781-721-4000

December 2022
Project 2200138



Jeffrey S. Holden, P.E., LEP
Project Manager

Breana K. Pabst
Staff Engineer

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B. Soil Vapor Assessment Memo
C. Soil Management Summary Report

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1. Introduction

On behalf of The Connecticut Light and Power Company (CL&P) dba Eversource Energy (Eversource), GEI Consultants, Inc. prepared this 2022 Annual Report for the Rockville former manufactured gas plant (MGP) site located at 13 Maple Street, in the Rockville section of Vernon, Connecticut (Site). The Site location is shown on Fig. 1. This report serves as the annual update as required by the Voluntary Remediation Program (VRP). The report includes a brief summary of background information for the Site, identifies remaining data gaps, summarizes project tasks completed in the calendar year, presents a refined conceptual site model (CSM), and provides an updated schedule.

2. Background

2.1 Site Description

The 3.43-acre Site is bounded by a wooded lot, a church, and residential properties to the north, Maple Street to the east, the Hockanum River and West Main Street to the south, and residential properties with frontage on West Street (Route 527) to the west. The Site is currently used as an electrical substation, Eversource's Substation 14W. The substation is enclosed by a perimeter fence that limits access to authorized personnel only. The Inner Substation Area includes the active electrical substation infrastructure including high voltage power lines, towers, transformers, and electrical control houses. Subsurface electrical power supply ducts and substation grounding grid are located beneath a crushed gravel cover inside the Inner Substation Area. Access to the Inner Substation Area is restricted by a high security fence equipped with barbed wire. Eversource requires notification and specialized training prior to entry to the Inner Substation Area and appropriate escort by qualified personnel.

The remainder of the parcel outside the Inner Substation Area is referred to as the Outer Substation Area (Fig. 2). The Outer Substation Area includes a grassed area surrounding the eastern and northern sides of the Site. A fenced area with a high-pressure gas regulator/control house is located on the western portion of the Outer Substation Area. The Hockanum River is in the Outer Substation Area and abuts the Inner Substation Area to the south. Wooded and overgrown areas are located on the northern portion of the Site adjacent to the St. Joseph's Church paved parking lot and along the southern portion of the Site between the Hockanum River and West Main Street.

The Site is zoned "NR-10", which is a designation provided to historic district neighborhood parcels. Surrounding land use within a 500-foot radius includes mixed residential, commercial, and industrial land use, schools, and a church.

2.2 Site History

2.2.1 Operational History

The Site was formerly a MGP that operated from 1863 until the mid-1930s when gas production ceased. The original MGP consisted of a distillation works and a gas holder, with coal gas produced by the retort process. By 1877, a second gas holder was erected, as well as a 1.5-story brick building to house gas production. In 1890, three gas engines were installed and the coal-gas made on-Site was consumed by electrical generators for arc lighting. In the mid-1890s, the MGP was converted to make carbureted water-gas. A third gas holder was erected at the MGP in 1922. Gas production ceased prior to the mid-1930s.

The footprint of the former MGP structures is shown in Fig. 2. The former MGP was acquired by CL&P in 1935 and later converted to be used as an electrical substation and natural gas regulator station, as it remains today.

2.2.2 Previous Environmental Reports and Site Status

Several investigations were conducted at the Site during the 1990s as identified below:

- Analysis of Remedial Alternatives, October 1996, RETEC
- Field Summary Report, April 1995, NUSCO
- Human Health Risk Assessment, December 1994, NUSCO
- MGP Off-Site Investigation, April 1994, NUSCO
- MGP Off-Site Investigation Phase I Interim Report, May 1993, NUSCO
- MGP Site Investigation, March 1992, NUSCO

On September 2, 2015, Eversource entered the Site into the VRP, pursuant to Connecticut General Statutes (CGS) 22a-133x, by submitting an Environmental Condition Assessment Form (ECAF) and fee to the CT DEEP. Acknowledgment of the ECAF and fee was provided in a letter from CT DEEP dated September 24, 2015. Since CT DEEP did not indicate that the Commissioner's review and approval of the investigation was required within 30 days of the date of their letter, the Site was automatically delegated to a Licensed Environmental Professional (LEP).

A data summary of the investigations listed above is provided in the ECAF and the "Site Status and Condition Report" prepared by GEI, both of which are dated August 31, 2015, and submitted to CT DEEP on September 2, 2015. A Water-Supply Well Receptor Survey was also performed as part of the ECAF; no wells were identified within a 500-foot radius of the Site.

Eversource retained Tighe & Bond as the LEP firm in December 2015. Tighe & Bond conducted various Site investigation activities and submitted Annual Reports to CT DEEP from December 2016 and December 2021. Sample locations associated with investigations performed by Tighe & Bond are shown in Fig. 3. CT DEEP Significant Environmental Hazard Forms were also submitted as required. In 2020, an Off-Site Soil Vapor Assessment was completed and submitted to the church pastor. In 2021, Exponent Ecological and Biological Sciences (Exponent) completed a Screening Level Ecological Risk Assessment (SLERA) that was submitted to CT DEEP. These activities have been summarized in prior annual reports.

In early 2022, Eversource once again retained GEI to plan and implement a Supplemental Phase II/III Environmental Site Assessment (ESA) Work Plan for the site.

On March 30, 2022, GEI provided a letter to CT DEEP indicating a change in the LEP of Record for the Site. GEI has recently assigned a new LEP of Record for this Site, Mr. Jeffrey Holden (LEP#423). Activities performed during 2022 are further discussed in Section 3.

2.3 Previously Identified Data Gaps

The following data gaps have been identified based on GEI's current understanding of the Site and prior investigation efforts:

- Characterization of the nature and extent of the groundwater plume within the intermediate groundwater zone is needed to the west/northwest of MW-42M, which exceeds the Surface Water Protection Criteria (SWPC) for extractable total petroleum hydrocarbons (ETPH) and the Groundwater Protection Criteria (GWPC) for benzene and ETPH.
- Additional groundwater data at St. Joseph's Church and proposed additional downgradient wells are needed to evaluate seasonal changes to constituents of concern (COCs) in groundwater downgradient of the Site.
- Additional groundwater data at the northwestern and western portions of the Outer Substation Area is needed to evaluate seasonal changes to COCs in groundwater at monitoring wells MW-03DR and MW-39S. Wells RW-03M, MW-03DR, and MW-37S need to be gauged to evaluate if measurable volumes of tar have accumulated at these locations.
- Volatile organic compounds (VOCs) and petroleum-impacted groundwater in well MW-35S is within 15 ft of the ground surface of the electrical control house slab, thus warranting a soil vapor assessment beneath the control house.
- Additional delineation of shallow soils (0-2 ft bgs) was needed (and has been performed) around previous soil sample locations SB-76 and SB-78 to determine the extent of soil with benzo(a)pyrene concentrations exceeding the SEH Condition Notification Threshold Concentration.
- The SLERA completed by Exponent in 2021 indicated a potential for Site-related COCs in the Hockanum River portion of the Site to present adverse ecological effects to benthic invertebrates, fish, and semi-aquatic wildlife. The SLERA recommended further evaluation in a Baseline Ecological Risk Assessment (BERA). GEI has recommended that a refined SLERA in lieu of a BERA will be performed. Additional data collection is required in support of the revised SLERA.

These data gaps served as the basis for developing the scope of work presented in the Supplemental Phase II/III ESA Work Plan, as further discussed in Section 3.

Some of these activities were able to be performed in 2022 and the remaining will be performed in 2023. Following completion of the proposed investigation activities for the Supplemental Phase II/III ESA, the existing data gaps will be re-evaluated. The results of the data gap analysis will determine if the nature and extent of impacts associated with the former MGP site has been defined. Any additional information required to select and design a remedy for the Site and to demonstrate compliance with the CT DEEP RSRs for soil, groundwater, NAPL impacts and potential ecological impacts in the Hockanum River will be identified.

2.4 Significant Environmental Hazard (SEH) Reporting Background

During sampling for the Phase III Environmental Site Assessment (ESA) in 2018, a sample was detected above CT DEEP's Significant Environmental Hazard (SEH) Condition Notification Threshold Concentration of 30 mg/kg for benzo(a)pyrene (BaP). The sample was collected from surface soils at SS-102 (shown in Appendix A on Fig. 2) located in the Inner Substation Area and was determined to be associated with historical fill. The exceedance was reported to CT DEEP in a SEH Notification Form (SEH ID:13641) on February 26, 2018. In response, CT DEEP issued an SEH Acknowledgment Letter on March 16, 2018, which stated that an immediate action to limit short-term risk was not required because the area was secured by permanent fencing. The letter required that the site investigation, remediation, and annual inspection reporting be continued in accordance with the plan provided in the SEH Notification Form.

Annual SEH Status Update Forms have been submitted to the CT DEEP since 2020 to provide an update on any SEH sampling, mitigation measures, and/or abatement activities. Additional locations exceeding the SEH Condition Threshold Concentration for BaP have been identified at the following locations and reported to the CT DEEP:

- In 2018 during the Phase III ESA, BaP was detected above the SEH Condition Notification Threshold Concentration in surficial soils at HA-01A, HA-02, and HA-03 located around SS-102 and in the one-to-two-foot interval at HA-18 located in the Outer Substation Area.
- In 2020, on-going Phase III ESA sampling identified BaP above the SEH Condition Notification Threshold Concentration within historical fill in soil borings SB-76 and SB-78 located within the Inner Substation Area.
- In 2021, precharacterization sampling to support the installation of a utility conduit duct bank found an SEH exceedance for BaP at OSS-4 in the Outer Substation Area. After excavation of the duct bank trench through the OSS-4 sample area, four sidewall samples including OSS-4NW, OSS-4NE, OSS-4SE and OSS-4SW, were collected from the trench. BaP results from these samples

indicated the SEH condition was abated. The soils from the OSS-4 area were removed and disposed of offsite along with the other soils generated from the project under the same waste profile.

Section 3.3 summarizes recent SEH activities including additional delineation sampling around SB-76 and SB-78 performed in March 2022, excavation around SB-78 performed in May 2022, and submittal of the 2022 SEH Status Update Form to the CT DEEP on May 25, 2022. The 2022 Status Update Form is provided in Appendix A and includes results from the March 2022 sampling and a figure showing the locations of all the SEH investigations and exceedances through May 2022. Additional SEH delineation samples were collected on December 9, 2022, to further delineate the eastern extent of soils exceeding SEH levels around location SB-76. The December 2022 sampling and preliminary results are discussed in Section 3.4.5.

3. 2022 Site Activities

This section summarizes key project-related activities performed through mid-December 2022, including the following:

- Preparation of the Supplemental Phase II/III ESA Work Plan
- A soil vapor assessment beneath the control house slab
- Additional SEH-related sampling and reporting
- Implementation of certain components of the Supplemental Phase II/III ESA Work Plan
- Management of soil and groundwater generated during construction activities and utility upgrades
- Repair and replacement of damaged monitoring wells

Each of these is discussed in further detail in the following subsections.

3.1 Supplemental Phase II/III Environmental Site Assessment Work Plan Development

GEI developed a Supplemental Phase II/III ESA Work Plan and submitted it to Eversource in June 2022. The Work Plan identified a proposed scope of work to address the data gaps identified in Section 2.3 above. It also included information regarding schedule, project sequencing, and reporting approach. The proposed investigation activities included:

- Collecting a soil vapor sample inside the control house for laboratory analysis
- Collecting and analyzing soil samples from nine boring locations for additional SEH delineation and overseeing abatement of one area
- Obtaining access agreements for off-Site investigations
- Advancing four soil borings at off-Site locations
- Installing two clustered shallow/intermediate monitoring well pairs and two stand-alone intermediate monitoring wells at the soil boring locations
- Installing five staff gauges in the Hockanum River
- Collecting twelve co-located surface water and sediment samples to support the revised SLERA

- Surveying the locations of surface water and sediment samples and the locations and elevations of newly installed monitoring wells and staff gauges
- Performing comprehensive groundwater and NAPL gauging in all existing and proposed wells
- Collecting four rounds of quarterly groundwater samples at select wells
- Performing three additional rounds of quarterly DNAPL gauging at select wells

Of these activities, soil vapor sampling and initial SEH delineation sampling were performed in March 2022. The SB-78 SEH area was abated in May 2022 during construction activities. Access agreements were written, agreed upon, and executed with private property owners by the end of October 2022. Various field investigation activities were subsequently performed in November and December 2022 including utility clearances, advancement of soil borings, installation of monitoring wells and staff gauges, collection of additional SEH delineation soil samples in the SB-76 area, collection of sediment and surface water samples, and a field survey to locate investigatory locations and elevations. Planned future activities described in the Supplemental Phase II/III ESA Work Plan include groundwater monitoring, NAPL gauging, and groundwater sampling. The Site activities completed in 2022 are discussed in the following sections.

3.2 Soil Vapor Assessment

GEI completed soil vapor sampling in March 2022 (during the winter season) to determine if soil vapor beneath the control house had been impacted by VOCs, specifically volatile fractions of ETPH, referred to as air-phase petroleum hydrocarbons (APH). The soil vapor testing was performed because groundwater collected from MW-35S, in close proximity to the control house, exceeded the residential and industrial/ commercial volatilization criteria (RES VC or I/C VC) for ETPH and volatile petroleum hydrocarbons.

Building design plans were reviewed and a private utility mark-out was performed inside the control house to identify the location. One temporary soil vapor point (Vapor Pin®) was installed beneath the control house slab and sampled on March 4, 2022. The Vapor Pin was installed following the manufacturer's recommended procedures. GEI collected one soil vapor sample, SV-CH-1 (4-hour) and submitted it under chain-of-custody protocols to Phoenix Laboratories in Manchester, Connecticut. The sample was analyzed for VOCs by EPA Method TO-15 and APH via Massachusetts Department of Protection APH Method. After sample collection, the soil vapor point was sealed with a cap and left in place for potential future sampling, if warranted.

GEI compiled the results of the soil vapor sampling into a memo and submitted it to Eversource on June 21, 2022.

The memo included the laboratory data package, a table of the detected compounds compared to the RES VC and I/C VC for soil vapor, and a figure showing the soil vapor sampling location. The detected concentrations of VOCs and ETPH were below both the RES VC and I/C VC for soil vapor and therefore meet the CT DEEP RSR Section 22a-133k-3(c)(1)(A) Alternative Demonstration of Compliance with Volatilization Criteria for Groundwater for Soil Vapor Below a Building. The memo is included as Appendix B to this Annual Report.

3.3 Significant Environmental Hazard (SEH) Activities

As mentioned in Section 2.3, BaP was detected in soil above the SEH Condition Notification Threshold Concentration of 30 mg/kg in samples SB-76 (0 to 2 ft) and SB-78 (0 to 1 ft) located within the Inner Substation Area collected by Tighe & Bond in 2020. Additional delineation sampling was completed in March 2022 to further delineate SEH exceedances, and excavation was performed in May 2022 around SB-78 during installation of a utility conduit. The SEH sampling and excavation activities were discussed in the 2022 CT DEEP SEH Status Update Form submitted to the CT DEEP.

3.3.1 Supplemental Soil Sampling

GEI advanced four (0-2 ft bgs) delineation borings around SB-76 (SB-76A through SB-76D) and four (0-2 ft bgs) delineation borings around SB-78 (SB-78A through SB-78D) on March 4, 2022. Due to frozen ground conditions at the time, each of these eight borings was advanced using a stepwise vacuum-excavation and hand tool sampling approach under the direction of Eversource and GEI field staff.

GEI collected soil samples from the 0- to 1-foot and 1- to 2-foot depth intervals from each of the borings, except at SB-76B and SB-76C where only a 1- to 2-foot interval sample was collected from each due to the presence of a footing/obstruction in the 0- to 1-foot interval at these two locations. All fourteen samples were submitted to Phoenix Laboratories under chain-of-custody protocols. Each sample was analyzed for PAHs by EPA Method 8270D.

Soil samples SB-78A through SB-78D delineated the extent of SEH exceedance at SB-78. Soil samples SB-76B through SB-76D delineated the southern, western, and northern extent of SEH exceedance at SB-76. One of the samples, SB-76A (1.0 to 2.0 ft), had a concentration of BaP that exceeded the SEH Condition Notification Threshold Concentration. Therefore, the eastern extent of BaP that exceeds the SEH condition at SB-76 and SB-76A was not delineated in the March 2022 sampling. An additional delineation boring, SB-76A1 was advanced to the east of SB-76A during field activities in December 2022 to delineate the eastern extent around SB-76, as discussed in Section 3.4.5.

The analytical results of the March 2022 SEH delineation soil sampling were provided to the CT DEEP in the 2022 SEH Status Update Form: Soil, a copy of which is included in Appendix A of this Annual Report.

3.3.2 Excavation

On May 16, 2022, Eversource and GEI oversaw the excavation of soil around sample location SB-78 that exceeded the SEH condition for BaP. A total of approximately 360 cubic feet (ft^3) (18 tons) of soil was excavated to the limits defined by delineation borings SB-78A through SB-78D. At first, approximately 340 ft^3 of soil was removed from the 13-foot by 13-foot by 2-foot-deep excavation, after which black stained fill was visually observed along the northwest sidewall. Under direction of Eversource and GEI, an additional 20 ft^3 of soil was removed from the black stained area. Excavated soils were directly loaded into a plastic-lined roll off dumpster located within the Site substation fence line. The excavation was performed as part of trenching activities for a cable conduit installation further discussed in Section 3.5. Off-Site disposal was coordinated by Tighe & Bond, and the disposal details and waste manifests are provided in their Soil Management Summary Report included in Appendix C of this Annual Report.

3.3.3 SEH Status Update Form

The 2022 CT DEEP SEH Status Update Form was prepared by GEI and submitted by Eversource to the CT DEEP on May 25, 2022. The update included the supplemental soil sampling to delineate the SEH exceedances at SB-76 and SB-78, excavation and abatement of SEH condition soils at SB-78, and an annual update for other previously identified surficial soils that exceeded the SEH Condition Notification Threshold Concentration that were identified during previous investigations at the Site. The analytical results of the soil sampling, a figure showing the excavation and sampling locations, and a photographic log of the Site conditions were provided with the Status Update Form. The SEH Status Update Form is provided in Appendix A.

3.4 Supplemental Phase II/III ESA Investigation Activities

Field investigation activities were performed in November and December 2022 in accordance with the Supplemental Phase II/III Environmental Site Assessment Work Plan described in Section 3.1. Investigation activities included utility preclearance, advancement of four soil borings, installation of two clustered shallow/intermediate monitoring wells pairs and two stand-alone intermediate monitoring wells, installation of five surface water staff gauges, collection of an additional SEH sample, and performance of sediment and surface water sampling. The investigation locations are shown on Figures 4 and 5.

3.4.1 Access Agreements

The Supplemental Phase II/III ESA Work Plan included installation of new monitoring wells on adjacent properties. Eversource coordinated with the associated private property owners, and all access agreements were executed as of the end of October 2022. The field work was planned once all the agreements were in place.

3.4.2 Drilling Program

Prior to beginning intrusive activities, a Call Before You Dig (CBYD) ticket was submitted by the drilling contractor, Cisco Geotechnical, LLC (Glastonbury, CT). In addition, GEI oversaw a private utility mark-out performed by CorBuilt, LLC to identify subsurface utilities or obstructions at the sampling locations. After utility locating had been completed, drilling activities began on November 28, 2022, and were performed by Cisco with direction and oversight from GEI. Each drilling location was first pre-cleared to a depth of five feet using soft-dig methods including vacuum clearance and an air knife. Vacuum-excavated soil from each location was staged adjacent to the boring and used as backfill at that respective boring location.

A total of four soil borings, MW-13M, MW-44M, MW45M, and MW-46M, (Figure 4) were advanced to approximately 50 ft bgs with a Geoprobe® direct-push drill rig or hollow stem augers. Macro-Core® sample tools with dedicated acetate sleeves were used to collect soil from each boring using the direct push equipment. Soils were logged and screened for total organic vapors (TOV) with a photo-ionization detector (PID). Soil observation and PID readings were recorded on the field logs. The drilling equipment was decontaminated between each sample location.

Four permanent intermediate monitoring wells, screened from approximately 30 to 40 ft-bgs, were installed at the above four soil boring locations. Two additional shallow wells (MW-44S and MW-45S) screened from approximately 10 to 20 ft-bgs, were installed adjacent to MW-44M and MW-45M, respectively.

Each monitoring well was constructed of 2-inch inner diameter (ID) polyvinyl chloride (PVC) with 10 feet of 0.010-inch slotted monitoring well screen. The wells were finished with 2-inch ID PVC riser pipe to ground surface and sealed with a locking expandable plug. The deeper wells were completed with 2-foot sumps at the bottom. The annular space surrounding the well screen to 2 ft above the top of the well screen was filled with sand. A 2-foot bentonite clay seal was placed above the sand and the remaining annular space was filled to grade with 2S filter sand. Drill cuttings were placed in a 55-gallon drum and stored on a containment pad located within the Outer Substation Area at the Site. A protective flush-mounted road box was installed and cemented in-place at each monitoring well.

3.4.3 Well Development

The newly installed monitoring wells were developed by alternately surging and pumping until the turbidity of the development water was less than 50 nephelometric turbidity units (NTUs) or until a maximum of 10 well volumes had been removed. Purged water generated from the development activities was containerized in 55-gallon drums and stored on a containment pad located within the Outer Substation Area.

3.4.4 Staff Gauges

GEI installed five staff gauges (SG-01 through SG-05) in the Hockanum River to obtain surface water elevation data to support further evaluation of groundwater flow and discharge. The river staff gauges were constructed using 5-foot-long graduated staff gauges marked to the tenths of a foot attached to 7-foot steel fence posts. The staff gauges were driven into the riverbed to secure it in place at the approximate locations identified on Figure 4. The reference elevation for the gauges was subsequently surveyed.

3.4.5 SEH Delineation Sample

To delineate the eastern extent of the SEH exceedance around SB-76, an additional delineation boring, SB-76A1, was advanced to 2 ft bgs to the east of SB-76A just outside the Inner Substation Area perimeter fence. Soil samples were collected from the 0- to 1-foot and 1- to 2-foot depth intervals and submitted under chain-of-custody to Phoenix Laboratories for analysis of PAHs by EPA Method 8270D. The preliminary analytical results for the samples were below the SEH Condition Notification Threshold Concentration for BaP such that the eastern extent of soils exceeding SEH levels around SB-76 has been delineated. The laboratory results are subject to data quality review and will be included with future document submittals.

3.4.6 Sediment and Surface Water Sampling

The SLERA conducted by Exponent submitted to CT DEEP indicated the need for additional ecological evaluation of potential adverse effects to aquatic and aquatic-dependent biota for the Hockanum River that flows through the Site. To refine the SLERA, GEI collected additional sediment and surface water data from the reach adjacent to and downstream of the Site and from additional upstream (background) locations.

Sampling was performed during low flow conditions in December 2022. Seven co-located surface water and sediment samples were collected from the on-site and downstream reach (SW/SD-01 through SW/SD-07). Five upstream samples (SW/SD-B01 through SW/SD-B05) were collected to quantify background contribution. Sediment samples were collected from the surface to six inches to focus on the biologically active zone. The sample locations are shown on Figures 4 and 5.

Samples were submitted to Phoenix Laboratories under chain-of-custody protocols. Sediment samples were submitted for analysis of the extended PAH34 suite of PAHs using EPA 8270E SIM and total organic carbon (TOC) to evaluate PAH bioavailability applying equilibrium partitioning. Surface water was submitted for analysis of total and dissolved metals, and select other parameters (hardness, dissolved oxygen concentration, pH) to allow more in-depth toxicological evaluation of water concentrations. Analytical results were not available in time for inclusion in this Annual Report.

3.4.7 Survey

GEI subcontracted a licensed surveyor, Design Professionals Inc., to survey the investigation locations in December 2022. The horizontal location, ground surface elevation, and the top of inner PVC casing elevation was established for each of the six newly installed monitoring wells (MW-44S/44M, MW-45S/45M, MW-46M and MW-13M). The horizontal location and top of staff gauge elevation was collected for the five staff gauges installed in the Hockanum River (SG-01 through SG-05).

3.4.8 Investigation Derived Waste

All investigation-derived waste (IDW), including soil cuttings, decontamination fluids, and purge water was containerized in 55-gallon drums. Separate IDW drums were used for soil, water, and miscellaneous solids/Personal Protective Equipment (PPE). The drums were appropriately labeled and staged on the existing containment pad located within the Outer Substation Area. This waste will be appropriately characterized, profiled, and disposed offsite in 2023.

3.5 Material Management

Eversource retained Tighe & Bond to manage excess soil and groundwater generated during construction activities and utility upgrades at the Site. Construction activities performed in 2022 included excavation and installation of an underground conduit to house an All Dielectric Self-Supporting (ADSS) cable within the Inner Substation Area, installation of a new support structure (Structure 6713) located between West Main Street and the Hockanum River in the Outer Substation Area, and installation of new distribution wooden utility poles along Maple Street and West Main Street. Tighe & Bond developed a Materials Management Plan (MMP), performed precharacterization sampling, and provided materials management and construction oversight services. Additional details regarding the material management are explained below and included in the Soil Management Summary Report prepared by Tighe & Bond and provided to Eversource in December 2022. The Soil Management Summary Report is included in Appendix C of this Annual Report.

3.5.1 Pre-characterization Soil Sampling

Tighe & Bond collected soil pre-characterization samples at the proposed location for Structure 6713 (STR 6713) in January 2022 to determine material management options. One soil boring was advanced in the footprint of the proposed structure to refusal at a depth of 26.5 ft bgs. Soils were continuously observed and screened for the presence of VOCs using a PID during advancement of the boring, and samples were collected for laboratory analysis from various intervals.

Pre-characterization sampling for the ADSS cable installation was performed on March 3, 2022. Eight soil borings were advanced for sample collection along the path of the proposed cable conduit inside the Inner Substation Area. Soils were continuously screened for VOCs using a PID during boring advancement. Samples were collected from the top five feet and submitted for laboratory analysis.

Further details regarding the pre-characterization sampling are provided in the Soil Management Summary Report (Appendix C of this Annual Report). The report includes a figure showing the sampling locations, tables of the soils sample results, and the laboratory reports. The results of the sampling were used to identify soil management options prior to beginning construction activities.

3.5.2 Structure 6713 Installation

Tighe & Bond provided material management oversight for drilling for the foundation of STR 6713 which was completed from March 21 to 24, 2022. In accordance with the MMP created by Tighe and Bond, soils from the top seven feet were direct-loaded and transported to Clean Earth in Plainville, Connecticut for disposal. A total of 29.04 tons of soils were transported to Clean Earth. Since the pre-characterization sample collected from five feet and below did not exceed CT DEEP Remediation Standard Regulations (RSR) criteria, the soils collected from below seven feet were transported to the northeast corner of the Outer Substation Area and spread to a maximum thickness of six inches across the existing grade.

Groundwater displaced during installation of STR 6713 was collected in a frac tank. A waste characterization sample was collected from the tank on March 29, 2022, and submitted to Phoenix Laboratories for analysis. A total of 6,265 gallons of groundwater was transported to Tradebe Treatment and Recycling Northeast, LLC in Meriden, Connecticut for disposal. Additionally, 15.81 tons of sediment that had settled out in the frac tank was removed and transported to Tradebe Treatment and Recycling in Stoughton, Massachusetts for disposal.

Copies of the waste manifests for each waste stream and the analytical results for the water waste characterization sample are provided in Tighe & Bond's Soil Management Summary Report (Appendix C of this Annual Report).

3.5.3 Cable Conduit Installation and Excavation

Excavation for the ADSS cable conduit was performed between late April and the end of May 2022. As noted in Section 3.3.2, the conduit passed through an area that exceeded the SEH Condition Notification Threshold for BaP (around SB-78). The trench was expanded in that area to remove the impacted soils to the limits of the delineation. For excavation around SB-78, a total of 380 cubic feet of soil was removed and disposed of at Clean Earth (Section 3.3.2). For the entire trench excavation, including the SEH soils around SB-78, a total of 108.64 tons of soil were transported for disposal at Clean Earth in Plainville, CT. Copies of the waste manifests for the conduit installation are included in the Soil Management Summary in Appendix C of this Annual Report.

3.5.4 Utility Pole Installation

Two utility poles were installed along Maple Street and West Main Street at the Site in August 2022. Soil displaced by the installation was containerized in four 55-gallon drums for waste characterization and disposal. A waste characterization sample was collected on August 10, 2022, for laboratory analysis. The drums were temporarily stored within the Outer Substation Area until September 8, 2022, when they were transported to Red Technologies in Portland, CT for disposal. A copy of the waste manifest and the analytical results for the waste characterization sample are included in the Soil Management Summary in Appendix C of this Annual Report.

3.6 Well Repairs and Replacement

Two monitoring wells, MW-12D and MW-12S, were damaged during construction activities to install Structure 6713 (Section 3.5). Based upon post-construction reconnaissance, MW-12D had been partially buried and damaged at the ground surface, and MW-12S had been irreparably damaged. Tighe & Bond oversaw well replacement and repair on November 23, 2022.

MW-12S was abandoned by grouting the well to the ground surface. Replacement monitoring well MW-12SR was subsequently installed immediately southeast of the previous well location. Soil cuttings were logged and screened with a PID during installation. The well was constructed of 2-inch ID PVC with ten feet of 0.010-inch slotted monitoring well screen from 6-16 ft bgs. A well completion log and a figure showing the location of the new monitoring well are included in the Soil Management Summary Report created by Tighe & Bond (Appendix C of this Annual Report).

MW-12D was repaired by digging out around the existing riser pipe and creating a clean cut below the damaged section. A new section of PVC pipe was attached the existing riser to extend it to the road box completion. After the repair, both MW12-D and MW12SR were developed to remove sediments.

Development water was containerized in a 55-gallon drum and temporarily stored within the fenced area of the Site. The monitoring well repair and replacement activities were documented by Tighe & Bond in their Soil Management Summary Report, and it is included in Appendix C of this Annual Report.

4. Conceptual Site Model

Tighe & Bond created a preliminary CSM summary table that was included in the 2021 Annual Report. That table has been modified to reflect additional data/findings from activities performed in 2022 and available to date. The revised table is included as Table 1 of this Annual Report. Modifications made from the version included in the 2021 Annual Report are indicated in red text on Table 1.

A revised/updated CSM will be developed to identify releases, migration pathways, potential receptors, and risks of the environmental system at the Site. An updated CSM will be provided as part of the Comprehensive Phase III Report, and reflect the additional data and findings collected through the implementation of the Supplemental Phase II/III ESA Work Plan. In doing so, GEI intends to consolidate AOCs to provide a streamlined CSM to clearly document the three dimensional and temporal distribution of contaminants in the context of the geologic, hydrogeologic, and hydrologic framework of the Site.

5. Schedule

An approximate timeframe for the anticipated Site activities for 2023 is provided below. Timeframes are estimated based on recently completed activities and may be altered if additional data gaps are identified or delays are encountered. The schedule will be updated annually as new data is available.

Task	Details	Approximate Timeframe
Supplemental Phase II/III Investigation Activities	Including soil borings advancement, monitoring well installations, sediment/surface water sampling, SEH soil sampling, staff gauge installations, and surveying	Completed in December 2022
1Q23 Well Gauging and Sampling	Comprehensive gauging of monitoring wells and NAPL assessment at all wells, and groundwater sampling at select well locations	January 2023
Data Gap Assessment	To be performed following receipt of data from November/December 2022 fieldwork and data from January 2023 groundwater monitoring event. If needed, recommendations will be made to address remaining data gaps.	March 2023
2Q23 Well Gauging and Sampling	DNAPL gauging at select wells based on the results of the 1Q23 gauging, and groundwater sampling at locations identified after comprehensive groundwater data evaluation	April 2023
Revised SLERA	Will reflect the results of the surface water and sediment sampling performed in December 2022 and will be submitted to CT DEEP when available	Third Quarter of 2023
2023 SEH Status Update Form	To include any SEH-related activities performed since the 2022 SEH Status Update Form submittal	By June 1, 2023
3Q23 Well Gauging and Sampling	DNAPL gauging and groundwater sampling at previously selected locations	July 2023
4Q23 Well Gauging and Sampling	DNAPL gauging and groundwater sampling at previously selected locations	October 2023
2023 Annual Report	Submittal to CT DEEP to include a summary of all investigation tasks and results completed in the calendar year	End of December 2023

Comprehensive Phase III Report	To be prepared approximately three months after the Q4 groundwater monitoring event, assuming no additional data gaps are identified based on results	Estimate submittal to CT DEEP in early 2024

Tables

Table 1. Conceptual Site Model Summary
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AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase II/III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Previous COCs in Soil	Phase II/III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
	Rockville Former MGP Site (On-Site)														
1	Former Retorts/ Generating Room	VOCs (BTEX), SVOCs, Metals, Total Cyanide, ETPH	Coal and oil used to generate manufactured gas. By-products generated could include tar residues, coal ash, coke, complexed cyanide compounds during the production of gas. Materials could have been used as fill in the building foundation.	Surface soils Subsurface soils Groundwater	TB-34 TB-47	SB-07 SB-43 SB-44 SB-46 SB-47 SB-48 MW-35S SB-76 SB-77	MW-9S/ MW-9D	MW-9S/ MW-9D MW-35S	Subsurface Soil samples from MW-09 contained VOC (ethylbenzene), SVOCs above GB PMC, metals detected. Pesticides detected (GB PMC exempt) Fill observed (ash, brick) and tar sheen and odors on auger cuttings.	ETPH above RES and I/C DEC and GB PMC in SB-07, SB-47, and MW-35S ETPH above RES DEC in SB-43 and SB-46 PAHs above RES and I/C DEC and GB PMC in SB-07, SB-43, SB-46, SB-47, MW-35S, SB-77 and SB-78. Benzo(a) pyrene above SEH Condition Threshold Concentration in SB-76. Fill observed (ash, brick, coal) in SB-07 Staining with petroleum odors (10-11.5 ft.) Tar impacts in SB-07: 16 to 25ft, 33-33.5ft., 39-40 ft. Tar impacts in SB-43 and SB-47 at 11-15ft. Tar impacts in SB-44 at 12-15ft and 24.5-26ft. Tar impacts in SB-46 10-37ft. Tar impacts MW-35S 8-20 ft. Petroleum odors in SB-77 4-6 ft. Fill observed in SB-76 0-4 ft. Fill observed in SB-77 0-2 ft. **A soil vapor sample (SV-CH-1) taken from beneath the control house was below RES VC and I/C VC for VOCs and ETPH (Phase II/III ESA)**	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC	**Shallow:** MW-9S: ETPH, VOCs (1,2,4-trimethylbenzene and naphthalene), PAHs, cyanide above SWPC. ETPH detected above Res VC and I/C VC. MW-35S: ETPH , MA VPH, MA EPH and PAHs above SWPC. ETPH and MA VPH above Res VC. VOC (naphthalene) detected above the SWPC. **Deep:** MW-9D: VOC,ETPH and cyanide not detected. Naphthalene and metals detected below the SWPC.	Surface water (Hockanum River) upgradient of the AOC	Phase I ESA (2017) Phase II Investigation (1992) Phase III ESA (2016-2020) **Phase II/III ESA (2022)**	Remedial evaluation pending the completion of the Phase III investigation.
2	Former Purifying House	VOCs (BTEX), SVOCs, Metals, Total Cyanide, ETPH	Manufactured gas was passed through lime used to scrub impurities (sulphur/cyanide) from the gas (Purifier waste). Materials could have been used as fill in the building foundation.	Surface soils Subsurface soils Groundwater	TBX1 TB-3 TB-4 TB-5 TB-20 TB-21 TB-22	TP-01 TP-02 TP-03 SB-31 SB-52	MW-9S/ MW-9D	MW-9S/MW-9D	Soil samples from MW-09 contained VOC (ethylbenzene), SVOCs above GB PMC, metals detected. Pesticides detected (GB PMC exempt) Fill observed (brick) and sheen and strong odors on auger cuttings.	ETPH and PAHs above RES and I/C DEC and GB PMC in SB-31 and SB-52 DEC does not apply due to samples greater than 15'. PAHs above RES and I/C DEC and GB PMC, ETPH above RES DEC in TP-03. PAHs detected above RES and I/C DEC and GB PMC. Cyanide detected in all but SB-31. Fill observed (bricks, metal pieces, metal conduit, cast iron pipe, ash) Tar impacts in SB-31 and SB-52 15-31ft	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC	**Shallow:** MW-9S: ETPH, VOCs (1,2,4-trimethylbenzene and naphthalene), PAHs, cyanide above SWPC. ETPH detected above Res VC and I/C VC. **Deep:** MW-9D: VOC,ETPH and cyanide not detected. Naphthalene and metals detected below the SWPC.	Surface water (Hockanum River) upgradient of the AOC	Phase I ESA (2017) Phase II Investigation (1992) Phase III ESA (2016-2020)	Remedial evaluation pending the completion of the Phase III investigation.
3	Former Gas Holder #1 [Gasometer-22,000 ft^3 Capacity]	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Residual tar droplets collected inside the bottom of the holder which is likely subgrade based upon its age (pre-1900 and boring refusal). Possible leaks or spills from the holder to the soils.	Surface soils Subsurface soils Groundwater	TB-18 (Refusal 13.6') TB-19 (Refusal 14') TB-6 (Refusal 15.5') TB-7 (Refusal 16.5') TB-45 CSS-4	SB-04 SB-05 SB-06 SB-29 SB-30 SB-31 SB-85 TP-04 TP-05	MW-10S MW-10M MW-10D	MW-9S MW-9D MW-10S MW-10M MW-10D MW-10BR MW-10SR MW-24S MW-32S	Surface soil: PAHs detected. Soil samples from MW-10 contained VOCs, SVOCs, pesticides above GB PMC but below the water table. Strong sheen and odor observed on auger cuttings. Fill observed TB-18 and TB-19.	ETPH above RES DEC in SB-29 and SB-30. ETPH and VOCs above RES & I/C DEC and/or GB PMC in SB-05, SB-06, SB-31, and TP-05. DEC does not apply to SB-05 due to sample depth greater than 15'. PAHs above RES and I/C DEC and/or GB PMC in SB-29, SB-30, and SB-31 Fill observed (ash, slag, and/or metal) in SB-06, SB-29, SB-30, SB-31, TP-04, TP-05 Heavily tar impacted soils within the Gas Holder #1 (5.75 to 14 feet). TCLP benzene in impacted above characteristic hazardous waste level in SB-85. Outside holder tar impacts observed in SB-04, SB-05 19.5- 39 feet, 44.5 ft. to 50 feet, 71 to 74 ft. and SB-31 from 11 to 31 ft and 47 to 49 ft	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC MW-10S: VOCs and cyanide detected, PAHs and metals above SWPC. MW-10M: VOCs (xylenes) detected, PAHs and metals above SWPC MW-10D: SVOCs and metal (zinc) above SWPC	**Shallow:** MW-10SR: Not sampled due to visual observations of tar globules/ staining during development. Tar present in subsequent gauging. Tar present in MW-24S and MW-32S during development. MW-24S contained in subsequent gauging. **Intermediate:** MW-10M: ETPH, VOCs (naphthalene) detected and PAHs above SWPC **Deep:** MW-10D: Not sampled due to visual observations of tar globules/ staining during development **Bedrock:** MW-10BR: ETPH, PAHs , VOCs, and metals detected.	Surface water (Hockanum River) upgradient of the AOC	Phase I ESA (2017) Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III ESA (2016-2020)	Remedial evaluation pending the completion of the Phase III investigation.

Table 1. Conceptual Site Model Summary
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4	Former Gas Holder #2 [Gasometer-22,000 ft^3 Capacity]	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Residual tar droplets collected inside the bottom of the holder which is likely subgrade based upon its age (pre-1900) and boring refusal. Possible leaks or spills from the holder to the soils.	Surface soils Subsurface soils Groundwater	TBX-4 TB-16 (Refusal 18') TB-17 TB-8 TB-9 TB-42	SB-02 SB-03 SB-04 SB-05 SB-28 SB-29 SB-73 SB-74 SB-75 SB-83 SB-84 TP-05 TP-06	MW-10S MW-10M MW-10D	MW-10S MW-10S2 MW-10M MW-10D MW-10BR MW-24S	Surface soil: PAHs detected. Soil samples from MW-10 contained VOCs, SVOCs, pesticides above GB PMC but below the water table Strong sheen and odor observed on auger cuttings (TB-16 and TB- 17). Fill (bricks) observed in TB- 16.	PAHs, ETPH and VOCs above RES & I/C DEC and GB PMC in SB-03 and SB-05. PAHs and ETPH above GB PMC in SB-02. PAHs above RES and I/C DEC and/or GB PMC in SB-28, SB-29, and SB-73. SB-73 is in compliance with GB PMC through SPLP testing. Elevated PAHs detected in SB- 75 likely intersects the apparent seasonal high water table. Arsenic above RES and I/C DEC and benzene above GB PMC in SB-28. ETPH above RES DEC in SB-29 Total and SPLP benzene above GB PMC and 10X GWPC in SB-83 1 to 3 ft. Fill observed (ash, brick, coal) in SB-05, SB-28, and SB-29, TCLP benzene in impacted above characteristic hazardous waste level in SB-84. Fill (wood, glass, metal) observed in TP-05. Tar impacts: SB-02: 18 to 39 ft. SB-03: 10.5 to 15 ft. SB-04: 2.5-37 ft. 44.5-50 ft. SB-05: 19.5 to 39 ft., 71-74 ft. SB-28: 24-36.5 ft. TP-05: 5.75 -6.0 ft.	MW-10S: VOCs and cyanide detected, PAHs and metals above SWPC. MW-10M: VOCs (xylenes) detected, PAHs and metals above SWPC MW-10D: SVOCs and metal (zinc) above SWPC	**Shallow:** MW-10SR: Not sampled due to visual observations of tar globules/ staining during development **Deep:** MW-10M: ETPH, VOCs (naphthalene) detected and PAHs above SWPC MW-10D: Not sampled due to visual observations of tar globules/ staining during development. **Bedrock:** MW-10BR: ETPH, PAHs ,VOCs, and metals detected.	Surface water (Hockanum River) upgradient of the AOC	Phase I ESA (2017) Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III ESA (2016-2020)	Remedial evaluation pending the completion of the Phase III investigation.
5	Former Gas Holder #3 [Gasometer-110,000 ft^3 Capacity)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Residual tar droplets collected inside the bottom of the holder which is likely a shallow subgrade based upon its age (post 1900). Possible leaks or spills from the holder to the soils.	Surface soils Subsurface soils Groundwater	SS-3A CSS-3 TB-13 (Refusal 8') TB-14 (Refusal 6.5')	TP-07	Groundwater not investigated. Water encountered inside the holder foundation.	MW-7S/MW-7D	Surface soils: PAHs and metals detected Fill observed	Surface soils: PAHs, cyanide and metals detected No visual impacts in soils.	Groundwater investigations not completed in AOC.	**Shallow :** MW-7S: ETPH and PAHs detected above the SWPC. VOCs and metals detected. **Deep:** MW-7D: PAHs, VOCs and metals detected	Surface water (Hockanum River) upgradient of the AOC	Phase I ESA (2017) Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III ESA (2016-2018)	Investigation complete. Soil remediation is not required. Groundwater impacts are likely associated with AOC-3 and AOC - 4 (Holder #1 and Holder #2). Groundwater impacts are addressed under site- wide groundwater AOC- 15.
6	Former Coal Shed	PAHs, Metals	Coal stockpiled for MGP could be present in the soils.	Surface soils Subsurface soils	Soils not investigated	SS-102 SS-103 SEH Invest. HA-01 HA-02 HA-03 HA-04 HA-05 HA-06 HA-07 HA-08 HA-09	Groundwater not investigated (within active transformer yard)	Groundwater not investigated (within active transformer yard)	No investigations completed in the AOC.	PAHs, ETPH, and lead above the RES and I/C DEC and GB PMC in SS-102. PCBs detected. Benzo (a) pyrene detected above the SEH Condition Notification Threshold Concentration. PAHs, ETPH, and arsenic above the RES and I/C DEC and/or GB PMC in SS-103. Cyanide detected. PAHs above the RES and I/C DEC in HA-01 through HA-09. SEH Threshold Notification Concentration for benzo(a)pyrene delineated HA-01, HA-2 and HA-03 above the threshold. Fill observed (coal, ash) in shallow soils below the trap-rock gravel cover to 2 feet below grade.	Groundwater investigations not completed in AOC.	Groundwater investigations not completed in AOC.	Surface water (Hockanum River) upgradient of the AOC	Phase I ESA (2017) Phase III ESA (2017-2018)	Delineation SEH soils for benzo (a) pyrene was completed in 2018. Remedial evaluation pending the completion of the Phase III investigation.
7	Former Transformer House	PCBs, ETPH	Transformer use. Possible leaks or spills could have impacted soils.	Surface soils Subsurface Soils	Soils not investigated (within active transformer yard)	SS-100 SS-101 SB-44	Groundwater not investigated (within active transformer yard)	Groundwater not investigated (within active transformer yard)	No investigations completed in the AOC.	PAHs above RES and I/C DEC and GB PMC in SS-100. Arsenic above RES and I/C DEC in SS-100 and SS-101. ETPH and cyanide detected. Fill, coal and brick, encountered to 5 feet below grade in SB-44. ETPH and cyanide detected. Visual Impacts (Appear to be associated with AOC -1) 12- 15 ft.: Petroleum odor and sheen 24.5-26: Faint tar odor	Groundwater investigations not completed in AOC.	Groundwater investigations not completed in AOC.	Surface water (Hockanum River) upgradient of the AOC	Phase I ESA (2017) Phase III ESA (2018)	Remedial evaluation pending the completion of the Phase III investigation.

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8	Current Substation	PCBs, ETPH, Metals,	Possible leaks or spills from transformers	Surface soils Subsurface Soils If significant release: groundwater	TB-34 TB-38 TB-39S TB-32 MW-8S	SS-100 to SS-106 HA-01 to HA-11 SB-43 SB-44	MW-8S	MW-2SR, MW-2D, MW-2BR, MW-5S, MW-5D, MW-8SR, MW-16S, MW-17S, MW-25S, MW-32S, MW-33S, MW-34S, MW-35S, MW-36S	PAHs and metals detected. Fill (sand) observed	Arsenic and ETPH above RES and I/C DEC in SS-100, SS-101, SS-104 and SS-106. PAHs, ETPH, and lead above the RES and I/C DEC and GB PMC in SS-102. PCBs detected. PAHs, ETPH, and arsenic above the RES and I/C DEC and/or GB PMC in SS-103. Cyanide detected. ETPH also above RES DEC, I/C DEC and GB PMC in SS-104 and Res DEC in SS- 106. PAHs above RES and I/C DEC and GB PMC in SS-100, SS-104, SS-105 and SS- 106. HA-01 through HA-07, HA-08 and HA-09: SEH investigation (See AOC 6) . PAHs above the RES and I/C DEC in HA-01 through HA-09. SEH Condition Notification Threshold Concentration for benzo(a)pyrene delineated see AOC-9. Fill observed in top 2 feet of soils. HA-09A: ETPH exceeds RES DEC, arsenic exceeds the RES and I/C DEC. PAHs exceed RES DEC, I/C DEC and GB PMC. Cyanide detected. PCBs not detected. HA-10: ETPH and PAHs exceed RES DEC, I/C DEC and GB PMC. Cyanide detected below RES DEC and GB PMC. Arsenic exceeds the RES and I/C DEC HA-11: Arsenic exceeds the RES and I/C DEC. ETPH detected. ETPH above RES DEC in MW-35S & MW-36S and above RES & I/C DEC in MW- 32S Arsenic above RES & I/C DEC in MW-35S and MW-36S PAHs above RES & I/C DEC and GB PMC in MW-32S, MW-33S, MW-34S, MW- 35S, and MW-36S. Benzo(a) pyrene detected above the SEH Condition Notification Threshold Concentration in SB-76 (0-2 ft.) and SB-78 (0-1 ft.) Visual Impacts (Appear to be associated with AOC -1) 12- 15 ft.: Petroleum odor and sheen 24.5-26: Faint tar odor	MW-8S: Metals detected above the SWPC. Cyanide detected.	**Shallow:** MW-2SR: Not sampled due to visual observations of tar globules (2017). PAHs detected above SWPC. VOC (naphthalene detected). MW-5S: PAHs detected above SWPC. ETPH detected above the SWPC, RES VC and I/C VC. VOCs, and metals detected. MW-8SR: PAHs detected above the SWPC. Elevated metals detected. Possibly associated with turbidity in sample. MW-16S: Metals and VOC (Chloroform) detected . MW-17S: VOCs (tetrachloroethene)and ETPH detected below SWPC. Metals detected. MW-33S: acenaphthylene detected above SWPC and ETPH above SWPC, RES VC and I/C VC. MW-34S; ETPH above SWPC, RES VC and I/C VC and PAHs (acenaphthylene, Benz(a)anthracene, chrysene) detected above the SWPC MW-35S: ETPH , MA VPH, MA EPH and PAHs above SWPC. ETPH and MA VPH above Res VC. VOC (naphthalene) detected above the SWPC. (associated with AOC-3). **Deep:** MW-2D: Not sampled due to visual observations of tar globules. MW-5D: Metals and ETPH detected **Bedrock:** MW-2BR: PAHs detected below the SWPC. Metals detected.	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase I ESA (2017) Phase II Investigation (1992) Phase III ESA (2016-2020)	Phase III ESA and pre-design sampling is needed for this AOC. Remedial evaluation pending the completion of the Phase III investigation.
9	Historic Site Fill	VOCs, SVOCs, Metals, PCBs, ETPH	Historic placement of fill during the development of Site.	Surface soils Subsurface soils	TB-02, TB-03,TB-04, TB-06, TB-13, TB-14, TB-16, TB-17, TB-18, TB-19, TB-20, TB-21, TB-22, TB-27, TB-31, TB-32, TB-33, TB-34, TB-38, TB-39, TB-40, TB-42, TB-45, TB-47, MW-02D, MW-04D, MW-05S, MW- 05D, MW-10S, MW-10M, MW-10D Historic fill was identified in multiple borings which overlap with other AOCs	On-site soils borings, SS-100 to SS-107, SB-76 to SB-83, TP-01 to TP-07, HA-01 to HA -18, **SB-78A to D, SB-76A to D, SB-76A1** Historic fill was identified in multiple borings which overlap with other AOCs	Not Applicable	Not Applicable	Fill (i.e., ash and bricks observed)	Fill (i.e., ash, bricks, slag, metals, glass, building debris, coal, and site fill) and former MGP plant foundations observed in several Phase III investigation locations. Fill as deep as 15 ft. Concentrations of COCs including PAHs, ETPH, and metals above RSR criteria covered under separate AOCs. Concentrations of benzo (a) pyrene above SEH Threshold Notification Concentration delineated in SS-102, HA-01A, HA-02 HA-03, HA-18, SB-76, SB-78 and **SB-76A**. **The extent of SEH exceedances around SB-78 and SB-76 was delineated during sampling performed in March 2022 (SB-78A to D and SB-76A to D) and Decemeber 2022 (SB-76A1)**	Wells screened below fill (See AOC-15)	Wells screened below fill (See AOC-15)	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase I ESA (2017) Phase II Investigation (1992) Phase III ESA (2018-2020) **Phase II/III ESA (2022)**	Phase III ESA and pre-design sampling is needed for this AOC. Remedial evaluation pending the completion of the Phase III investigation. **Soils in the vicinity of SB-78 were excavated and disposed of in May 2022.**

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10	Hockanum River Sediment	PAHs and Metals	Possible historic discharges to the river from the Site, historic discharges from up gradient industries, current storm water run-off and anthropogenic sources.	Sediment	R-Sed-A/B/C/D Sediments (A,B,C, D)	River Sediment Samples SED-01 SED-02 SED-03 SED-04 SED-05 SED-06 Outfall Sediment Samples SED-07 SED-08 SED-09 Background Sediment Samples SED-101 SED-102 SED-103 SED-104 SED-105	Not Applicable	SW-01 SW-02 SW-03 SW-04 Background Surface Water Samples SW-100 SW-101	PAHs and metals detected above sediment screening criteria. VOC (methylene chloride) detected.	River Sediment Samples ETPH, PAHs, and metals detected. Highest PAH concentrations were detected upstream at SED-01. ETPH detected in all sediment samples. Metals detected in all sediment samples. Elevated copper, lead and zinc detected in SED-06. SED-06A, B, C were collected in the vicinity of SED-06. Outfall Sediment Samples VOC (toluene), ETPH, PAHs and metals were detected. Background Sediment Samples PAHs, ETPH and metals detected in SED-101 through 105.	Not applicable	COCs not detected in groundwater. Barium detected below SWPC in adjacent monitoring wells.	Barium detected in all surface water samples. Chromium detected in SW-01 and SW-02, Zinc detected in SW- 01, SW-02, SW-03, and SW-04 Background surface water samples: Barium detected.	Phase I ESA (2017) Phase II Investigation (1992) Phase III Investigation (2017- 2020)	Investigation is completed. SLERA is currently being prepared and will be submitted to CTDEEP for review
11	Coal Tar impacts and Fill Observed at TB-33 (Southwestern portion of Site)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Historic placement of fill.	Surface soils Subsurface Soils Groundwater	TB-33 TB-34 MW-5S MW-5D	SB-11 SB-36 SB-37 SB-38 SB-39 SB-40 SB-41 SB-42 SB-53 MW-16S MW-17S SB-69 SB-70 SB-71 MW-31S (boring)	MW-5S MW-5D	MW-5S MW-5D MW-16S MW17S MW-30S MW-38S MW-39S MW-31S	VOCs, PAHs and metals detected. Fill (sand) with tar observed.	ETPH and PAHs detected above RES and I/C DEC and GB PMC in SB-11. Naphthalene (VOC) detected above GB PMC and arsenic and lead detected above RES and I/C DEC in SB-11. Fill (Ash and Slag) observed in SB-11, SB-36, SB-39 ,SB-40, SB-40A, SB-69, SB- 70, SB-71 to approximately 5 feet. SB-11: Sheen and tar odor observed from 5 to 8 feet. SB-36: Tar odor 12 to 20 feet. Sheen 15 to 20 feet. SB-38: sheen and tar odor 10 to 11 feet. SB-40: sheen and tar odor 8 to 15 feet. SB-69: ETPH above RES & I/C DEC & GB PMC, arsenic above RES & I/C DEC 1 to 3 feet. PAHs above RES & I/C DEC & GB PMC 1 to 3 feet and 4 to 5 feet. SB-70: Arsenic above RES & I/C DEC. PAHs above RES & I/C DEC & GB PMC 3 to 4 feet. SB-71: ETPH above RES DEC & GB PMC 1 to 3 feet and 8 to 10 feet. PAHs above RES & I/C DEC & GB PMC 1 to 3 feet, 5 to 7 feet and 8 to 10 feet.	MW-5S: PAH (Acenaphthylene) detected above the SWPC. VOC (xylene) and metal (chromium) detected. MW-5D: VOC (Benzyl Alcohol) and metals detected above SWPC. SVOC (2-methylphenol) detected.	**Shallow:** MW-5S: ETPH and VOCs detected below SWPC. PAHs detected above SWPC. Metals detected. MW-16S: Metals and Chloroform (VOC) detected MW-17S: VOC (tetrachloroethene), ETPH detected below SWPC. Metals detected. MW-30S: ETPH and acenaphthylene above SWPC. ETPH above RES VC MW-31S: Metals detected MW-38S & MW-39S: Acenaphthylene above SWPC MW-39S: ETPH detected above the SPWC, RES VC and I/C VC **Deep:** MW-5D: Metals and ETPH detected	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase I ESA (2017) Phase II Investigation (1992) Phase III Investigation (2016- 2018)	Remedial evaluation pending the completion of the Phase III investigation.

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12	Tar impacts and Fill Observed (Southeastern portion of Site)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Historic placement of fill (AOC-13). Possible migration for spills or leaks from adjacent Retorts (AOC-1) or Purifying House (AOC-2).	Surface soils Subsurface Soils Groundwater	CSS-5 TB-2 TB-3 TB-24 TB-28 MW-6S MW-6D	SB-08 SB-09 SB-09A SB-10 SB-24 SB-32 SB-33 SB-48 SB-49 SB-50 SB-51 SB-82 SS-107 SS-108 HA-17 HA-18 SB-76 to SB-82	MW-2S MW-2D MW-6S MW-6D	MW-2SR MW-2D MW-2BR MW-6S MW-6D	Surface Soil: PAHs exceeded the Res DEC and GB PMC. Subsurface soils: VOC(methylene chloride), SVOCs, cyanide, and metals detected. Fill (ash and sand fill), Tar impacts sheen observed.	PAHs detected above RES and I/C DEC and GB PMC in SB-08, SB-09A. PAHs detected above the RES DEC and GB PMC in SB-24. ETPH detected above RES DEC in SB-09A. Concentrations of PAHs and ETPH were detected above the RES DEC, I/C DEC and/or the GB PMC in SB-32 and SB-51. Concentrations of arsenic were detected in above the RES DEC and I/C DEC. HA-17: ETPH and cyanides detected. PAHs detected above the RES DEC., I/C DEC and GB PMC. Lead above the GB PMC. HA-18: ETPH, PAHs above the RES DEC/ I/C DEC and GB PMC. Benzo (a) pyrene above the SEH Threshold Notification Concentration. SB-76: to SB-82: PAHs above the RES DEC/ I/C DEC and GB PMC SB-79: Benzene above GB PMC 1-2 ft, PCE above GB PMC and RES DEC 1-2 ft, GB PMC 3-4 ft and 5-6 ft SB-81: Dieldrin above GB PMC 0-1 ft SB-82: ETPH above RES DEC, I/C DEC, and GB PMC 2-3 ft SB-08: Staining and fuel oil odor 11 to 2 ft. Staining and tar odor from 24 to 29 ft. SB-10: Sheen and tar odor 9 to 24.5 ft. SB-33: tar odor 7 to 11 ft. Sheen, blebs and tar odor 11.5- 20 ft. SB-50: Tar from 11-12 ft. Sheens and tar blebs were observed from 15 to 17 feet. sheens and tar odors were observed from 17 feet to 25 feet SB-51: petroleum orders and grey staining from 14 to 17 feet. Sheen, tar blebs and/or tar odors were observed from 17 to 20 feet. Fill (brick, glass, slag, and/or ash) observed in SB-08, SB-09A and SB-24, SB-32, SB-33, SB-48 to SB-51, and SB-76 to SB-82.	MW-2S: Dry. MW-2D: Metals and PAHs detected above the SWPC and VOCs (xylene and ethylbenzene detected). MW-6S: Metals detected above the SWPC. SVOC (bis2-ethylhexylphthalate) detected.	**Shallow:** MW-2SR: Not sampled due to visual observations of tar globules (2017). MW-6S: Naphthalene and metals detected below the SWPC. **Deep**: MW-6D: PAHs detected below SWPC. Metals detected. MW-2D: Not sampled due to visual observations of tar globules **Bedrock:** MW-2BR: PAHs detected below the SWPC. Metals detected.	Hockanum River located adjacent but up gradient of location.	Phase I ESA (2017) Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2016- 2020)	Remedial evaluation pending the completion of the Phase III investigation.
13	Possible Historic Fill to the south of the Hockanum River	PAHs	Possible historic placement of fill.	Surface Soil Subsurface Soil	SS-5A, SS5B, SS-5C, SS-5D TBX2 TB-63 and TB-64	SB-25 SB-26 SB-27 SB-54 SB-55 SB-56 SB-57	MW-11S MW-11D MW-12S MW-12D	MW-11S MW-11D MW-12S MW-12D	Surface soil and shallow subsurface soils: PAHs exceeded the RDEC, IDEC and GB PMC.	Surface Soil: PAHs detected above RES and I/C DEC and GB PMC in SB-25, SB-54 and SB-55. Cyanide was detected in SB-54 and SB-55, Metals were detected in SB-54, SB-55, SB-56, and SB-57. SPLP metals were detected in SB-54 and SB-57. Fill (slag and/or ash) observed in SB-26, SB-27, SB-54, SB-55, SB-56, and SB-57.	MW-11S/ MW-11D MW-12S / 12D No analytical data	**Shallow:** MW-11S/ MW-12S: Metals detected **Deep:** MW-11D/ MW-12D: Metals and/or pyrene (PAH) detected	Hockanum River located adjacent and downgradient.	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2017- 2018)	Remedial evaluation pending the completion of the Phase III investigation.
14	Tar impacts and Fill Observed (Northern portion of Site)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Impacted area to the north of former Gas Holders #1 and #2, Possible migration for spills or leaks from adjacent holders that migrated northward.	Surface soils Subsurface Soils Groundwater	TB-12, TB-36, TB-37,TB-40, TB-42 TB-46, TB- 49A,TB-50, TB-51, TB-52, TB-53, TB-54, TB-55 TB-55A, TB-56, TB-58 , TB-59, TB-60, TB-61, TB-62, MW-1, MW-3S, MW-3D, MW-4S, MW-7S TBX5, TBX6 SS-3B. SS3-C, SS3-E, SS3-D, SS1-C, CSS-1, CSS-2	SB-01 SB-12 SB-13 SB-20 SB-21 SB-22 SB-45 SB-59 SB-60 (off-site) SB-64 (off-site) SB-68 SB-73 SB-74 SB-75 MW-37S/D MW-03DR	MW-1S, MW-1D, MW-3S, MW-3D, MW-4S, MW-4D	MW-1S, MW-1D, MW-3S, MW-3D, MW-3DR MW-3BR, MW-4S, MW-4SR, MW-4D, MW-7S, MW-7D, MW-18D, MW-24S, MW-25S, MW-37D, MW- 37BR	Surface Soil: PAHs detected above the Res DEC and GB PMC. Metals and cyanide detected. Subsurface soils: SVOCs detected above the Res and I/C DEC and GB PMC and VOCs and pesticide (lindane) detected above the GB PMC. Metals detected. Fill observed and tar odors and tar sheen.	Shallow Subsurface Soils: PAHs detected in SB-21 above the RES DEC, I/C DEC and GB PMC. SPLP PAHs were not detected indicating PAHs are not leachable. PAHs detected in SB-22. PAHs, ETPH, VOCs, cyanide were not detected in SB-01, SB -12 and SB-13 in samples collected just above apparent water table. Elevated concentrations of ETPH, VOCs, and SVOCs detected in SB-13 (25.5- 27.5') below water table (~15ft.) SB-45: Metals detected SB-59: PAHs, Cyanide, and VOCs detected Fill observed: Brick observed at 0.5-3.0 ft. in SB-21 and SB-59. Tar impacts were encountered SB-12: from 25-30 ft. (Staining, sheen and coated soils) and 37.5-39ft. (Strong tar odor) SB-13: 20-39 ft. (Staining and heavily tar coated soils and odors) SB-01: 29 to 31 ft. Sheen and tar odor. SB-45: Tar odors 30-41 ft. Tar blebs observed from 30-38 ft. SB-59: Coal and slag 2-3 ft. Tar odors 30 to 45 ft. PAHs,VOCs, and cyanide detected (2 to 3) SB-60: Tar odor 40 to 45 ft. Naphthalene and Xylene (VOCs) detected. SB-64: No visual impacts or odors. MW-37S/D: Sheen and odors observed below water table. SB-68: Tar product observed (23-34 ft), sheen observed (23-59 ft). VOCs, PAHs, and ETPH detected MW-03DR: Tar product observed in auger cuttings (23')	**Shallow:** MW-1S:Metals detected above the SWPC. MW-3S: Metals and PAHs detected above the SWPC. VOCs detected. MW-4S: Metals detected above the SWPC. cyanide, VOCs (1,1,1-TCA) and SVOC (bis2-ethylhexylphthalate) detected. **Deep:** MW-1D: Metals detected above the SWPC. SVOCs detected. MW-3D: Metals detected above the SWPC. SVOCs and VOC (1,1,1-TCA) detected. MW4D: Lead detected above the SWPC.	**Shallow:** MW-4S: Cyanide, metals, VOCs, and PAHs detected MW-4SR: Acenaphthylene (PAH) detected above the SWPC. Cyanide detected. MW-25S: Cyanide, metals, and PAHs detected MW-3S/MW-7S: Metals and VOCs detected. PAHs and ETPH detected above the SWPC MW-1S: Metals, ETPH and PAHs detected above the SWPC. MW-24S: Measurable tar observed in well. **Deep:** MW-1D: ETPH and VOCs detected. PAHs and metals (copper and nickel) detected above the SWPC. MW-3DR: ETPH and acenaphthylene detected above SWPC. MW-4D/MW-7D: Metals detected. MW-18D: ETPH, VOCs, and PAHs detected above the SWPC. Metals detected. MW-37D: Metals detected. **Bedrock:** MW-3BR: PAH (acenaphthylene) above SWPC. ETPH and VOCs detected. Metals detected. MW-37BR: Metals and VOCs detected.	Hockanum River is located up gradient on - site	Phase I ESA (2017) Phase II (1990/1991) Human Health Risk Assessment (1994) Phase III ESA (1996-2020)	Additional Phase III ESA investigation is proposed to assess the seasonal groundwater conditions and assessment of the recoverability of tar. Remedial evaluation pending the completion of the Phase III investigation.

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15	Site wide groundwater impacts	VOCs, SVOCs, Metals, PCBs, ETPH, Chromium, Barium, ETPH	Groundwater impacts from spills or leaks occurring at the site. Groundwater flows to the north away from the Hockanum River.	Groundwater	NA	NA	MW-1S, MW-1D, MW-2S, MW-2D, MW-3S, MW-3D, MW-4S, MW-4D, MW-5S, MW-5D, MW-6S, MW-6D, MW-8S, MW-9S, MW-9D, MW-10S, MW-10M, MW- 10D, MW-11S, MW-11D, MW-12S, MW-12D	MW-1S, MW-1D, MW-2SR, MW-2BR, MW-2D, MW-3S, MW-3BR, MW-4S, MW-4SR, MW-4D, MW-5S, MW-5D, MW-6S, MW-6D, MW-7S,MW-7D, MW-8SR, MW-9S, MW-9D, MW-10SR, MW-10M, MW- 10BR,MW-11S, MW-11D, MW-12S, MW-12D, MW-16S, MW-17S, MW-18D, MW-19S, MW-24S, MW-25S, MW-26S, MW-26D, MW-26BR, MW-27S, MW-28S, MW-29S, MW-29D, MW-30S, MW-33S, MW-34S, MW-35S, MW-36S, MW-37D, MW-37BR, MW- 38S, MW-39S	See AOCs above for site investigation information for soils	See AOCs above for site investigation information for soils	**Shallow:** ETPH, VOCs, PAHs, metals, and Cyanide above the SWPC. See above AOCs for individual wells **Deep:** ETPH, VOCs, PAHs, metals, and Cyanide above the SWPC.. See above AOCs for individual wells	**Shallow:** ETPH, VOCs, PAHs, and /or Cyanide above the SWPC. in MW-1S, MW-5S, MW7S, MW-8SR, MW-9S, and MW- 10M, MW-29S, MW-30S, MW-33S, MW-34S, MW-35S, MW-38S, and MW-39S. See above AOCs for individual well summary of COCs. Tar globules and staining observed in MW-2S, MW-10SR, and MW-24S during development. Measurable tar observed in MW-10SR and MW-24S **Deep:** VOCs, ETPH, PAH (acenaphthylene) above the SWPC in MW-18D. MW- 3DR: ETPH and acenaphthylene detected above SWPC. Tar globules and staining observed in MW-2D, MW-3D and MW-10D **Bedrock:** PAH (acenaphthylene) above SWPC [MW-3BR] . ETPH and VOCs detected. Metals detected. See AOCs above for individual well information.	Hockanum River is located up gradient on -site/ Losing Stream	Phase I ESA (2017) Phase II Investigation (1992) Phase III Investigation (2016- 2020)	Additional Phase III ESA investigation is proposed to assess the seasonal groundwater conditions

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Off-site AOCs															
16	Off-site Tar Impacts St. Josephs School/Church Parking Lot	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Tar impacted area to the north of the property line. Possible migration of impacts to the north from the MGP. Shallow fill possible in the development of the property.	Subsurface Soils Groundwater Surface soils	Soil Borings TB-113, TB-115, TB-116, TB-117, TB-118, TB-119, TB-120, TB-121, TB-125, TB-126, TB-127, TB-130 Surface Soil R426-A, R426-B, R426-C, R426-D R437-A, R437-B, R437-C, R437-D R438-A, R438-B, R438-C, R438-D R446-A, R446-B, R446-C, R446-D R452-A, R452-B, R452-C, R452-D	SB-14, SB-15, SB-16, SB-17, MW-19S, MW-20S, SB-61, SB-62, SB-66, SB-67, MW-29D, MW-14M (Boring) MW-40S (Boring) MW-41S (Boring) MW-42S (Boring) MW-43S/M (Boring)	MW-13S, MW-13D, MW-14S, MW-14D	MW-13S, MW-13D, MW-14S, MW-14M, MW-14D, MW-19S, MW-20S, MW-21S, MW-26S, MW-26D, MW-26BR, MW- 29S, MW-29D, MW-40S, MW-41S, MW-42S, MW-42M, MW-43S, MW-43M	Subsurface soils: PAHs detected above the GB PMC VOCs (ethylbenzene, toluene, and xylene detected). Fill observed. Sheens and/or isolated lens of coal tar were observed in soil borings TB-115 through TB-120 and TB-126 at depths ranging between 21.6 to 42 feet below grade. Surface Soil: PAHs detected above the Res DEC and GB PMC along West Street	PAHs, ETPH, VOCs, cyanide were not detected in SB-14, SB-15, SB-16, SB-17 in samples collected just above apparent water table. EPTH, VOCs, and PAHs detected in the deep soil samples collected from SB-14 and MW-20S within tar-impacted intervals below the water table. SB-14: 20.5-23 ft. coated with tar material with tar odors. SB-61: 22.5-44 ft. tar blebs, odors, and sheen. SB-66: 20-30 ft. tar odors. SB-15: 31.5-34 ft. veins coated with tar. MW-20S: 35-38 ft. black stained and sheen with tar odor. No visual impacts in SB-62 and SB-67. Slight tar like odor observed in MW-29D, no visual impacts. Low level detections of benzene and naphthalene. Detections of tar-related VOCs in MW-40S, MW-41S, and MW-42S detected below the water table.	**Shallow:** MW-13S: Copper detected above the SWPC. Metals, SVOC (bis2-ethylhexylphthalate) detected .MW-14S: Metals detected **Deep:** MW-13D: Metals detected. MW-14D Metals detected. VOC (tetrachloroethylene) and SVOC (bis2-ethylhexylphthalate) detected.	**Shallow:** MW-13S: Metals and bis2- ethylhexylphthalate) MW-14S: PAHs, metals and cyanide detected. MW-19S: Metals detected MW-21S: Metals and PAHs detected MW-20S: Tar globules / staining in MW-20S. MW-29S: ETPH and benzene above SWPC and RES & I/C VC. Benzene and ETPH in compliance with the RES VC via soil vapor testing. Naphthalene above SWPC. MW-41S: ETPH was detected above SWPC and RES & I/C VC. ETPH is in compliance with the RES VC via soil vapor testing. Acenaphthylene above SWPC. PAHs, metals, and VOCs detected MW-42S: VOCs and ETPH not detected. Phenanthrene, barium, and chromium detected. MW-43S: VOCs and ETPH not detected. Phenanthrene and barium detected. MW-26S: ETPH , VOCs and PAHs not detected. Barium detected. **Intermediate:** MW-14M: ETPH above SWPC . Elevated concentrations of benzene and tar-related VOC detected. Acenaphthylene above SWPC. MW-42M: ETPH above GWPC and SWPC, Benzene above GWPC. PAHs, tar - related VOCs, metals (barium, thallium, zinc). detected **Deep:** MW-14D: ETPH, cyanide, Acenaphthylene (PAH) above SWPC. Metals and VOCs detected. MW-13D: Metals and naphthalene detected MW-26D: Acenaphthylene above SWPC. Metals and VOCs detected. MW-43M: VOCs, PAHs and ETPH not detected. Barium, nickel, and zinc detected. **Bedrock:** MW-26BR Naphthalene and barium detected	Hockanum River is located upgradient on-site and approximately 600 feet to the west.	Phase II (off-site) 1993 Phase III Investigation (2017-2020)	Additional Phase III ESA investigation is proposed to further assess seasonal groundwater conditions at St. Joseph's Church property and the extent of off-site groundwater impacts in intermediate groundwater zone.
17	Off-site Tar Impacts Maple Street ROW	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Impacted area within the Maple Street ROW from 15 to 32 feet. Possible migration of impacts from the Retorts (AOC-1) Former Gas Holders #1, #2, (AOCs 3,+). Possible off-site fuel oil impacted in TB-101 and TB-103 from up gradient source of fuel oil.	Subsurface Soils Groundwater	TB-97, TB-99, TB-101, TB-103, TB-104, TB-105, TB-106, TB-111A, TB-11B, and TB-111C	SB-18, SB-19, SB- 64	Groundwater not investigated	MW-28S MW-23S	Subsurface Soils had concentrations of VOCs, SVOCs, pesticides (Aldrin, alpha- BHC, and 2-Hexanone) at concentrations above the GB- PMC but were located below the water table. Cyanide and metals were detected. Tar impacts (sheen and odors) encountered from 15 to 32 feet.	ETPH, VOCs, and PAHs detected in SB-18 above the GB PMC. The DEC does not apply to SB-18 due to the sample depth greater than 15'. SPLP VOCs and PAHs detected. Petroleum staining/ sheen and odors 19-23ft. Tar staining/ odors from 24-29 ft. ETPH and PAHs were detected above the RES and I/C DEC and GB PMC in SB-19. Petroleum staining/ sheen and odors 11-19 ft. Tar staining/ odors from 19-26.5 ft. ETPH, PAHs, and VOCs were not detected in SB-64 No visual impacts in SB-64	Groundwater not tested.	MW-23S: Metals detected MW-28S: Metals and naphthalene detected	Hockanum River located up gradient of location.	Phase II (off-site) 1993 Phase III Investigation (2018)	Off-site petroleum impacts are noted within the Maple Street ROW. Petroleum impacts also ere noted at #12 and #14 Maple Street. Impacts could be associated with former 1,000-gallon UST at former 8 Maple Street residence or other off- site source. Remedial evaluation impacts will be assessed in the Remedial Evaluation.

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18	Petroleum Impacts #12 and #14 Maple Street	VOCs (BTEX), SVOCs, ETPH	Petroleum-impacted soils from 15 to 27 feet below grade from an up gradient source that migrated via groundwater flow onto the properties.	Subsurface soils Groundwater	TB-203, TB-204, TB-206, TB-219, TB-221, TB-224 (#8 Maple Street) TB-200 and TB-217 (#12 Maple Street)	Not investigated during Phase III	Groundwater not investigated	MW-23S	Subsurface soils contained detections of PAHs. Boring log was not available during the CSM development.	Not investigated during Phase III	Groundwater not tested.	**Shallow:** Adjacent USPS ROW: MW-23S: VOC (chloroform) and metals detected below SWPC	Hockanum River located up gradient of location.	Phase II (off-site) 1994 Phase III Investigation (2018)	Phase I ESA identified a 1,000 leaking underground storage tank used for heating oil at the former 8 Maple Street Residence.
19	Suspected Fill #12 and #14 Maple Street	PAHs	PAHs detected in the shallow subsurface soils (TB-217) possibly from historic fill used in the development of the property.	Surface soils Subsurface soils	TB-217	Not investigated during Phase III	Groundwater not investigated	MW-23S	Subsurface soils contained detections of PAHs, with a detection of (Benzo (a)pyrene) above the Res DEC, I/C DEC and GB PMC. Boring log was not available during the CSM development to assess for presence of fill.	Not investigated during Phase III	Groundwater not tested.	**Shallow:** Adjacent USPS ROW: MW-23S: VOC (chloroform) and metals detected below SWPC	Hockanum River located up gradient of location.	Phase II (off-site) 1994 Phase III Investigation (2018)	Possible historic fill associated with the development of property or potential off- site source.
20	Off-site Tar Impacts (Residence #14 Maple Street)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Tar-impacted soils (sheen and odor) between 30 and 37 feet. Tar migrated beneath Maple Avenue onto the western portion of the property.	Subsurface soils Groundwater	TB-207, TB-210, TB-211, TB-215, MW-15D	Not investigated during Phase III	MW-15S MW-15D	MW-23S	Subsurface soils contained detections of VOCs and PAHs at concentrations above the GB PMC. However, these impacts are likely below the water table and the GB PMC is not applicable.	Not investigated during Phase III	MW-15S: Metals and cyanide exceeded SWPC. VOC (MTBE detected). MW-15D: Metals detected above the SWPC.	**Shallow:** Adjacent USPS ROW: MW-23S: VOC (chloroform) and metals detected below SWPC	Hockanum River located up gradient of location.	Phase II (off-site) 1994 Phase III Investigation (2018)	Access to property was not provided. Tar impacts were assessed with a soil boring within Maple Street ROW (AOC-17) Remedial evaluation pending the completion of the Phase III investigation.
21	Off-site Surface Soils Maple Street School [PAHs Detected above RSR Criteria]	PAHs	PAHs detected in surface soils and shallow subsurface soils at the Maple Street School property.	Surface soils	R453, R454, R455, R456 R501-A, R-501-B, R-501-C, R-501-D R502-A, R-502-B, R-502-C, R-502-D R503-A, R-503-B, R-503-C, R-503-D R504-A, R-504-B, R-504-C, R-504-D R505-A, R-505-B, R-505-C, R-505-D R506-A, R-506-B, R-506-C, R-506-D	Not investigated during Phase III	Groundwater not investigated	Groundwater not investigated	Surface soils and shallow subsurface soils	Not investigated during Phase III	Groundwater not tested.	Groundwater not tested.	Hockanum River located up gradient of location.	Phase II-Surface Soil collection in 1995	Possible historic fill associated with the development of the school property or potential off-site source.
22	Off-site Surface Soils 175 Union Street [PAHs Detected above RSR Criteria]	PAHs	PAHs are detected in surface soils at nearby off-site properties (175 Union Street and Tolland AWC)	Surface soils	R426-A,R426-B,R426-C, R426-D R437-A,R437-B,R437-C, R437-D R438-A,R438-B,R438-C, R438-D R446-A,R446-B,R446-C, R446-D R452-A,R452-B,R452-C, R452-D RBG2-B and RBG2-C	Not investigated during Phase III	Groundwater not investigated	Groundwater not investigated	Surface soils and shallow subsurface soils	Not investigated during Phase III	Groundwater not tested.	Groundwater not tested.	Hockanum River located up gradient of location.	Phase II-Surface Soil collection in 1995	Possible historic fill associated with the development of the property or potential off-site source.

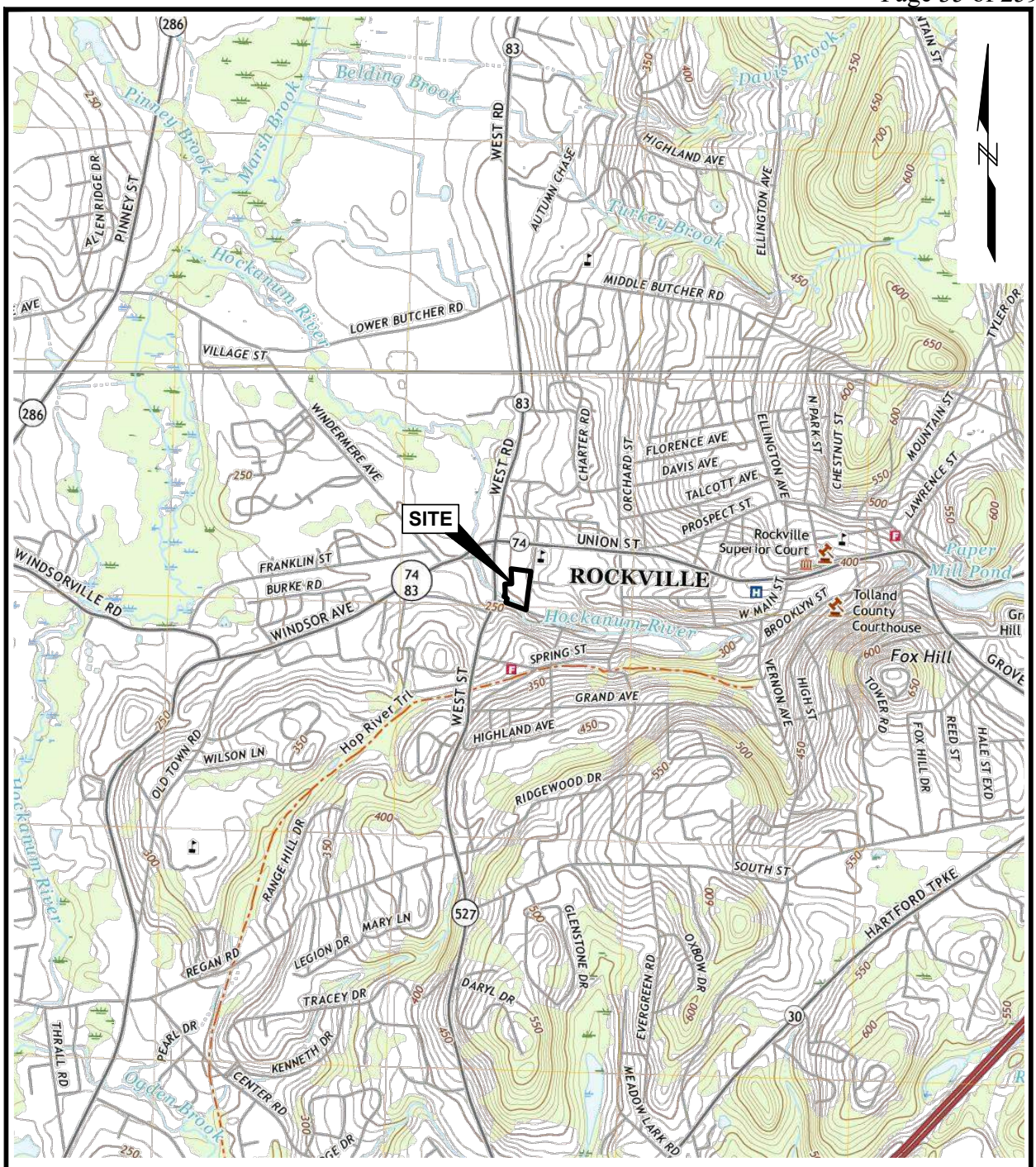
Table 1. Conceptual Site Model Summary
2022 Annual Report
Rockville Former MGP Site

AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase II/III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Previous COCs in Soil	Phase II/III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
23	Off-site Groundwater Impacts	VOCs	Groundwater impacts from spills or leaks occurring at the site and migrating offsite.	Groundwater	NA	See AOC 16	MW-13S, MW-13D, MW-14S, MW-14D, MW-15S, MW-15D, MW-19S, MW-20S, MW-21S, MW-23S	MW-13S, MW-13D, MW-14S, MW-14D, MW-19S, MW-20S, MW-21S, MW-23S, MW-26S, MW-26D, MW-26BR, MW- 27S, MW-28S, MW-30S, MW-31S, MW-40S, MW-41S, MW-42M, MW-42M, MW-43S, MW-43M Soil Vapor Assessment SV-01, SV-02, SV-03, SV-05	Soils not assessed	See AOC 16	**Shallow:** Metals and cyanide detected above SWPC. VOCs and PAHs detected **Deep:** Metals detected above SWPC. VOCs and PAHs detected	**Shallow:** Tar globules / staining in MW-20S. MW-19S/MW-21S/MW-28S: metal and PAHs detected MW-13S and MW-26S (Plasticizers detected - possible lab contamination) MW-27S: ETPH, metals, and naphthalene detected MW-23S: Metals detected MW-14S: Cyanide, metals, and PAHs detected MW-31S: Barium and nickel detected MW-29S: ETPH and benzene above SWPC and RES & I/C VC. Benzene and ETPH in compliance with the RES VC via soil vapor testing. Naphthalene above SWPC. MW-41S: ETPH was detected above SWPC and RES & I/C VC. ETPH is in compliance with the RES VC via soil vapor testing. Acenaphthylene above SWPC. PAHs, metals, and VOCs detected MW-42S: VOCs and ETPH not detected. Phenanthrene, barium, and chromium detected. MW-43S: VOCs and ETPH not detected. Phenanthrene and barium detected. MW-26S: ETPH , VOCs and PAHs not detected. Barium detected. **Intermediate:** MW-14M: ETPH above SWPC . Elevated concentrations of benzene and tar-related VOC detected. Acenaphthylene above SWPC. MW-42M: ETPH above GWPC and SWPC, Benzene above GWPC. PAHs, tar - related VOCs, metals (barium, thallium, zinc). detected MW-43M: VOCs, PAHs and ETPH not detected. Barium, nickel, and zinc detected. **Deep:** MW-14D: metals and VOCs detected. ETPH, Cyanide, and PAHs detected above the SWPC. MW-26D metals and tar-related VOCs detected, PAH (acenaphthylene) detected above SWPC. ETPH not detected **Bedrock:** MW-26BR Naphthalene and barium detected. VOCs and ETPH not detected.	Hockanum River is located upgradient on-site and approximately 275 feet to 400 feet to the west.	Phase II (off-site) 1994 Phase III ESA (2018-2020)	Additional Phase III ESA investigation is proposed to assess seasonal groundwater conditions at St. Joseph's Church property and to assess the nature and extent west of groundwater impacts to the west of West Street.

NOTES:
MGP=- manufactured gas plant VOC = Volatile Organic Compound
BTEX- Benzene, toluene, ethyl benzene and xylenes ETPH- Extractable Total Petroleum Hydrocarbons PAH = Polycyclic Aromatic Hydrocarbon
TPH = Total Petroleum Hydrocarbons PCBs= Polychlorinated Biphenyls
SWPC- Surface Water Protection Criteria
Res DEC- Residential Direct Exposure Criteria
I/C DEC - Industrial Commercial Direct Exposure Criteria
CSM = Conceptual site model, described by the Connecticut Department of Environmental Protection as "a representation of an environmental system that is used as a tool for understanding and for explaining to others the basis and rationale for site investigation and the conclusions drawn about the environmental conditions at a site. A CSM describes, explains, and provides and understanding of the nature and distribution of contaminants necessary to evaluate potential risks to human health and the environment. The CSM is an iterative approach to site characterization. The number of iterations and quantity and quality of information is a function of the complexity of site conditions and data quality objectives". This interim CSM is subject to change.

AOC = Area of concern, defined by the Connecticut Department of Environmental Protection as "locations or areas at a site where hazardous waste and or hazardous substances (including petroleum products) have been used, stored, treated, handled, disposed, spilled, and/or released to the environment".

Figures



SOURCE:
MAP CREATED ROCKVILLE, CT QUADRANGLE, 7.5-MINUTE USGS TOPOGRAPHIC MAP, 2021 AND ELLINGTON, CT QUADRANGLE, 7.5-MINUTE USGS TOPOGRAPHIC MAP, 2021.

0 2000 4000

SCALE: 1" = 2000'

2022 Annual Report Rockville Former MGP Site Rockville, Vernon, Connecticut	GEI Consultants	SITE LOCATION MAP
Eversource Energy Berlin, Connecticut	Project 2200138	December 2022 Fig. 1

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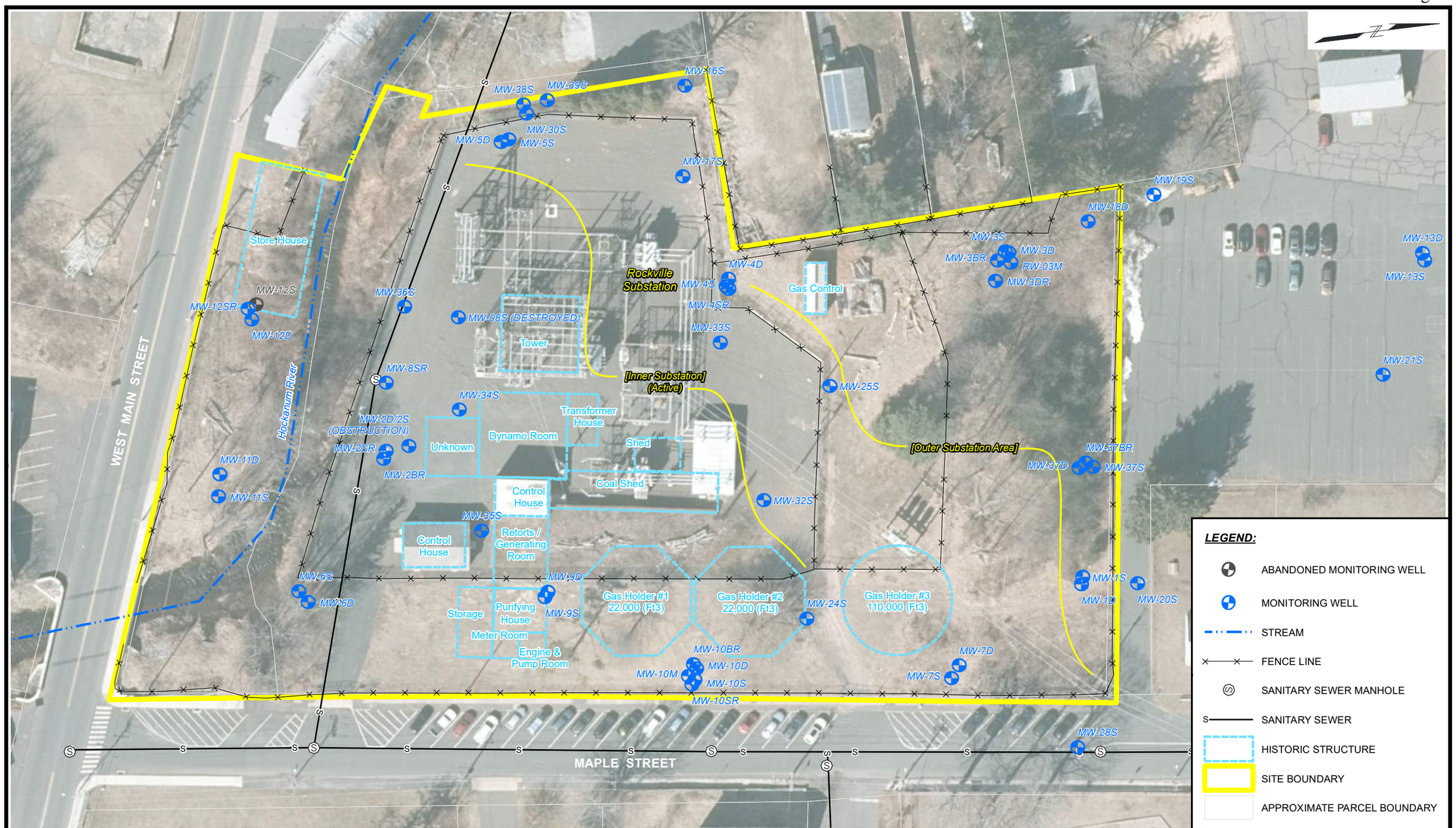

SOURCES:
1. DATA PROVIDED BY TIGHE & BOND.
2. WORLD IMAGERY LAYER, Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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SCALE, FEET

2022 Annual Report
Rockville Former MGP Site
Rockville, Vernon, Connecticut

Eversource Energy
Berlin, Connecticut

GEI Consultants

SITE LAYOUT AND HISTORICAL STRUCTURES

Project 2200138 | December 2022 | Fig. 2

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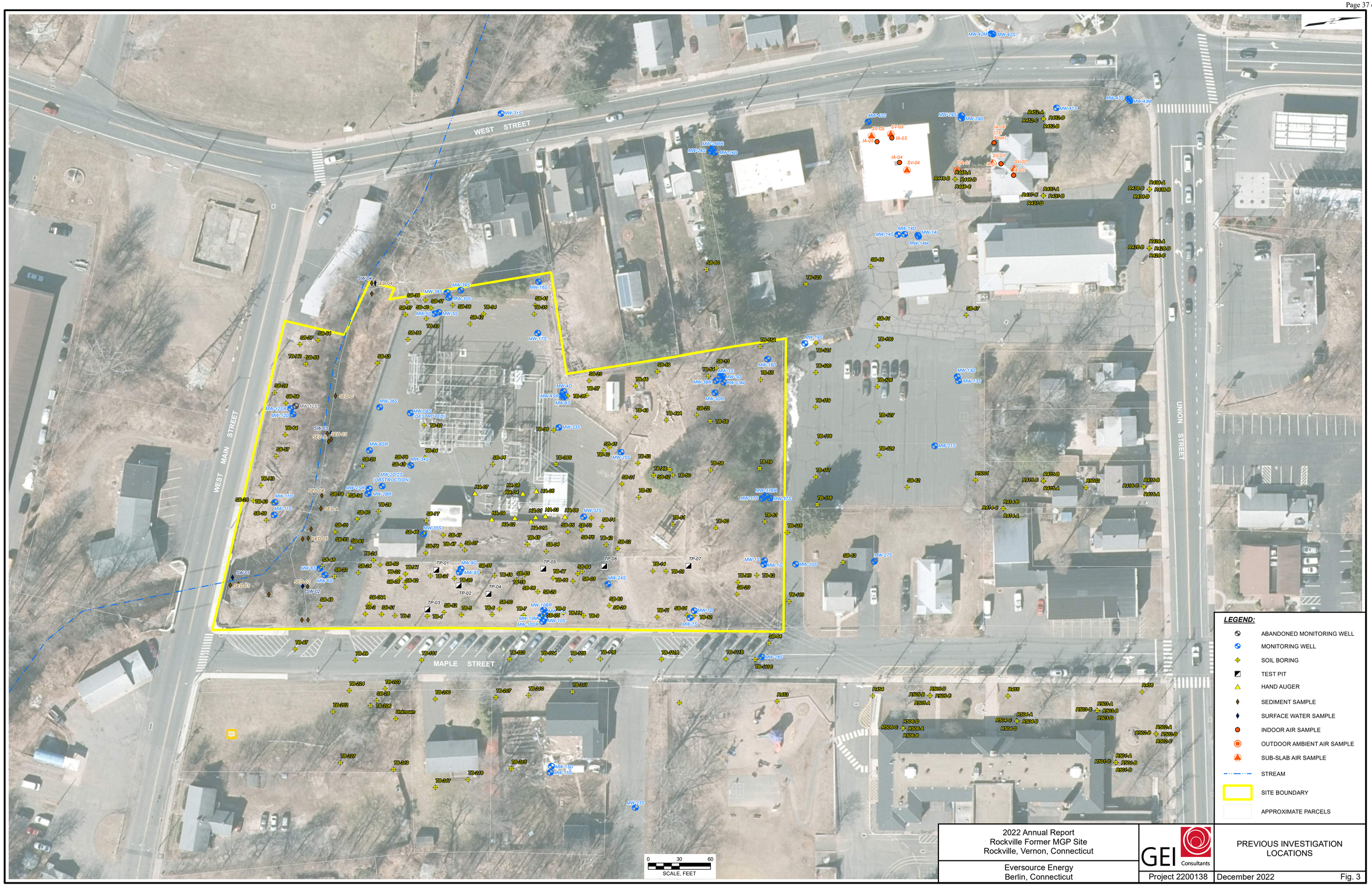

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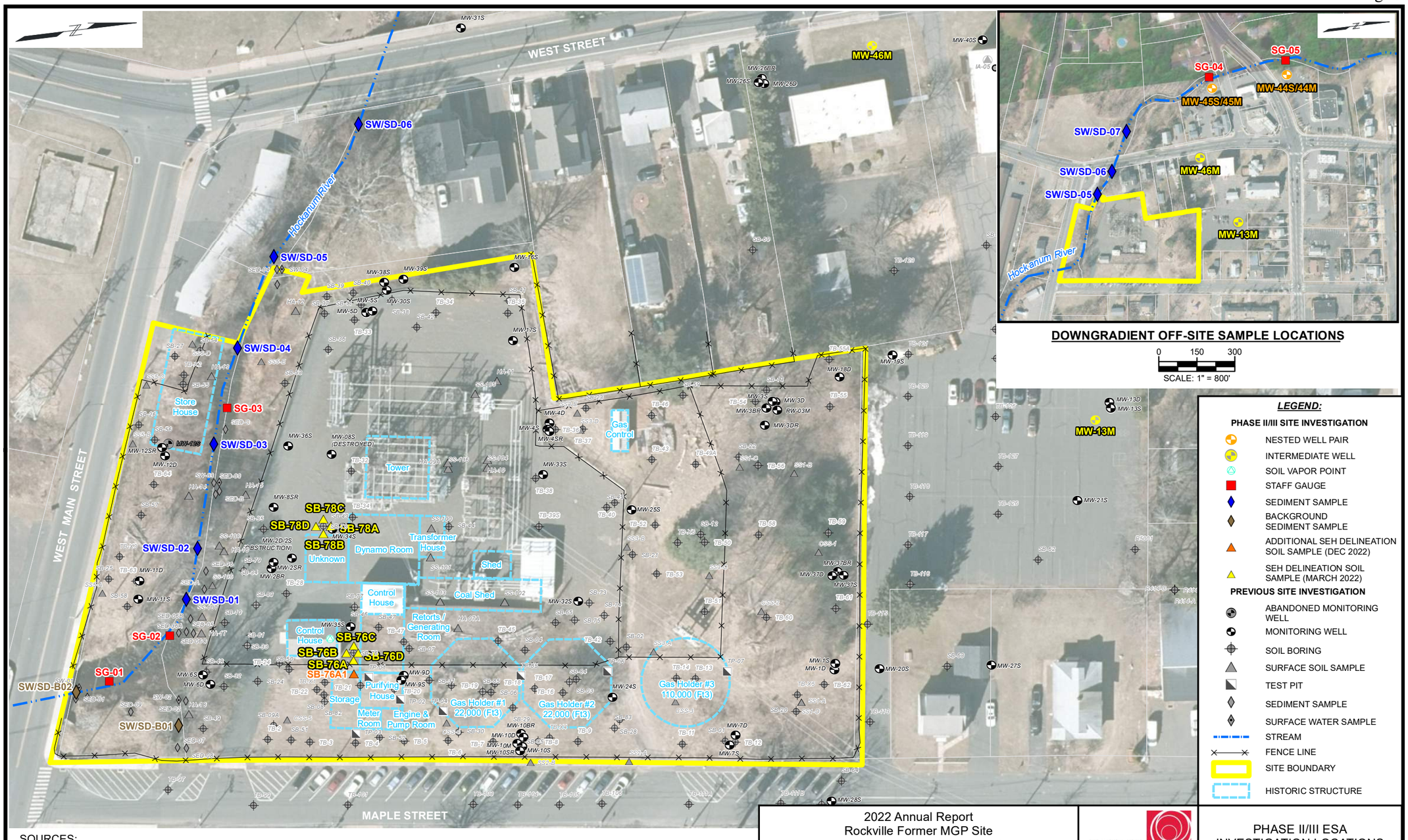

SOURCES:
1. ALL PREVIOUS SAMPLE LOCATION DATA PROVIDED BY TIGHE & BOND.
2. WORLD IMAGERY LAYER, Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

2022 Annual Report
Rockville Former MGP Site
Rockville, Vernon, Connecticut

Eversource Energy
Berlin, Connecticut

GEI Consultants

PHASE II/III ESA
INVESTIGATION LOCATIONS

Project 2200138 | December 2022 | Fig. 4

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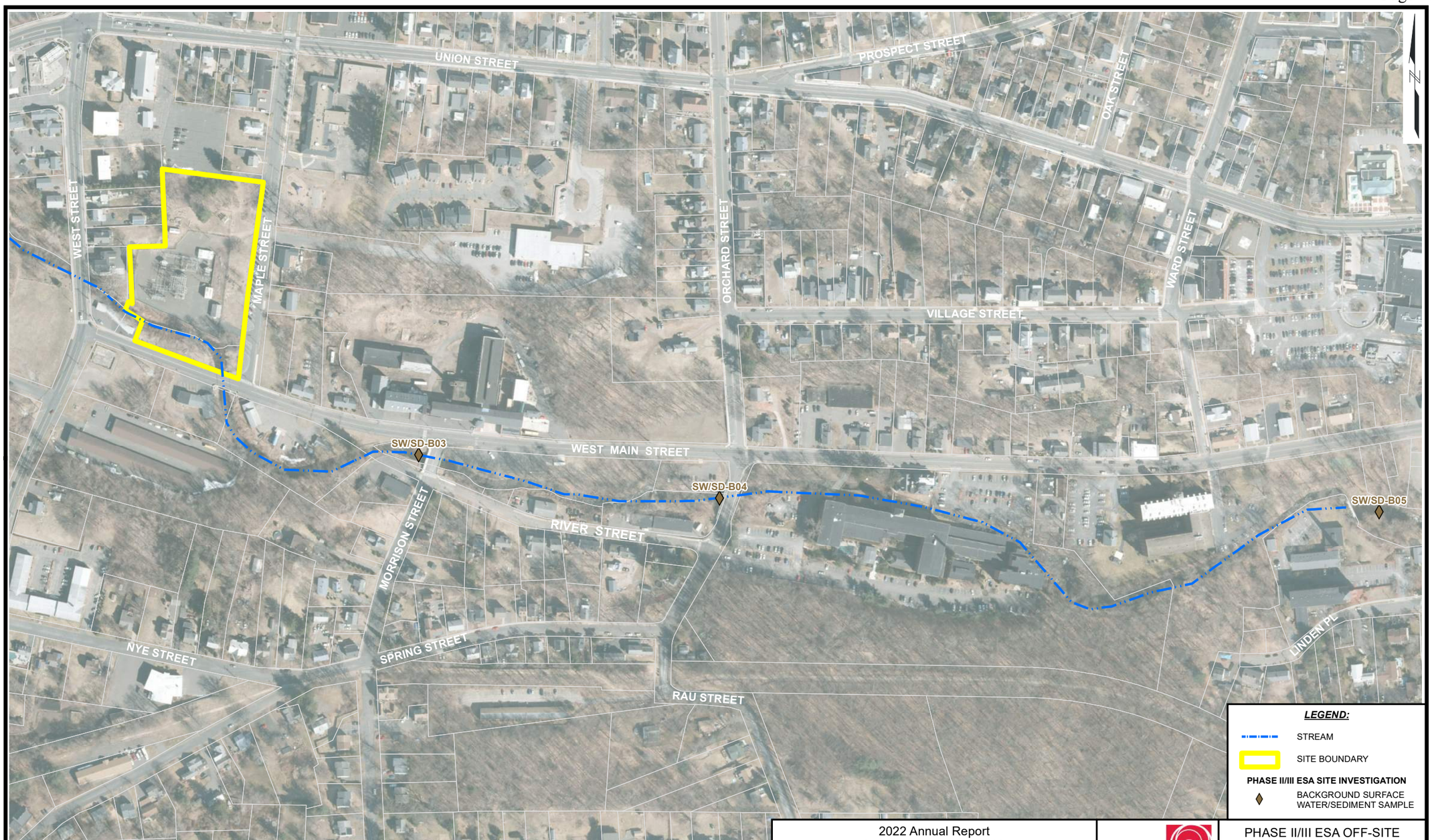

SOURCES:
1. ALL PREVIOUS SAMPLE LOCATION DATA PROVIDED BY TIGHE & BOND.
2. WORLD IMAGERY LAYER, Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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2022 Annual Report
Rockville Former MGP Site
Rockville, Vernon, Connecticut

Eversource Energy
Berlin, Connecticut

GEI Consultants

PHASE II/III ESA OFF-SITE UPGRADIENT SURFACE WATER AND SEDIMENT SAMPLE LOCATIONS

Project 2200138 | December 2022 | Fig. 5

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Appendix A

Significant Environmental Hazard Status Update Form: Soil

Electronic Transmittal Form for DEEP Remediation and LUST Secure File Transfer (SFT)

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
REMEDIATION DIVISION
LEAKING UNDERGROUND STORAGE TANK COORDINATION PROGRAM
www.ct.gov/deep

This Electronic Transmittal Form must be completed and included as the cover sheet of your electronic document when uploading a document to the Connecticut SFT website. Requirements for Transmittals through the SFT website:

- Only document types identified in the dropdown lists in Part III below may be submitted through the SFT website.
- Documents submitted through the SFT website must include all applicable figures, tables and laboratory data.
- Files must be formatted as PDF/A and use the appropriate naming convention:
  - For Remediation Filings: **REM_RemID_DocumentType_DateofDocument**
    Example: REM_1234_MonitoringReport_01-01-2001
  - For LUST Filings: **LUST_SiteAddress_Town_AbbreviationForDocumentType_DateofDocument**
    Example: LUST_1MainStreet_Hartford_ESA_01-01-2001
    Note: For "AbbreviationForDocumentType" use appropriate abbreviation at Transmittal of Documents

Part I: Primary Recipient*: Remediation Program (* required)

For Remediation documents:	For LUST documents:
Primary Program*: Significant Environmental Hazard	UST Facility ID: (if applicable)
Rem ID*: 13641	Spill Case Number: (if known)

Part II: Site Information

Site Name*: Rockville Former Manufactured Gas Plant
Site Address*: 13 Maple Street
City/Town*: Rockville/Vernon State: CT Zip Code: 06066

Secondary Programs (complete as many as applicable for this document):

Program:	Project ID:
Program: Select Secondary Program	Project ID:
Program: Select Secondary Program	Project ID:
Program: Select Secondary Program	Project ID:

Provide Project ID for each secondary program if it is known.
Each program has a unique ID (i.e. Rem ID, Spill Case #, UST Facility ID, etc.)

Part III: Document Information (document type required for appropriate program[s] only)

Remediation*: SEH Status Update- Soil
LUST*:
Date of Document*: 5/25/2022 Version: Final

Part IV: Submitter Information

Name*: Drew P. Blicharz
E-mail*: drew.blicharz@eversource.com
Name of company/business this document is being submitted on behalf of: *
Eversource Energy Service Company

EVERSOURCE ENERGY

Environmental Affairs Department
107 Selden Street, BMN2
Berlin, CT 06037

May 25, 2022

Monica Meschiatti
Remediation Division
Bureau of Water Protection and Land Reuse
Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Reference: **Rockville Former Manufactured Gas Plant Site**
REM ID: 13641/SEH ID: 1075
Significant Environmental Hazard Status Update Form: Soil

Dear Ms. Meschiatti:

The Connecticut Light and Power Company dba Eversource Energy (Eversource) submits the enclosed *Significant Environmental Hazard (SEH) Status Update Form: Soil* for the Rockville Former Manufactured Gas Plant Site located at 13 Maple Street in Rockville, Vernon, Connecticut (the Site). An SEH Notification (SEHN) was submitted to the Connecticut Department of Energy and Environmental Protection (CT DEEP) on February 26, 2018. The SEHN reported that benzo(a)pyrene (BaP) was detected at a concentration that exceeded the SEH Condition Notification Threshold Concentration in shallow surficial soils (upper two feet) in a sample collected from SS-102 (0-6") during the Phase III Environmental Site Assessment (ESA).

On March 4, 2022, supplemental soil sampling was performed to delineate other SEH soil BaP exceedances at SB-76 and SB-78. The SB-76 and SB-78 SEH exceedances were identified in 2020 during on-going Phase III ESA activities and reported to CT DEEP as part of the 2020 Voluntary Remediation Program (VRP) Annual Report for the Site and in the 2021 SEH Status Update Form. GEI collected soil samples from a total of eight locations to delineate the BaP SEH exceedances previously detected at SB-76 and SB-78. Soil samples SB-78A through SB-78D delineate the extent of SEH exceedance at SB-78. Soil samples SB-76B through SB-76D delineate the southern, western, and northern extent of SEH exceedance at SB-76. One of the samples, SB-76A (1.0-2.0'), had a concentration of BaP that exceeds the SEH Condition Notification Threshold Concentration. Therefore, the eastern extent of BaP that exceeds the SEH condition at SB-76 and SB-76A has not yet been delineated. Soil analytical results from the 2022 soil sampling are provided in Table 1.

On May 16, 2022, Eversource and GEI oversaw the excavation of soil at SB-78 that exceeded the SEH condition for BaP. A total of approximately 360 cubic feet (18 tons) of soil was excavated to the delineation borings SB-78A through SB-78D. Approximately 340 cubic feet of soil was removed from the 13-feet by 13-feet by 2-feet deep excavation. Black stained fill was visually observed along the northwest sidewall. Under direction of Eversource and GEI, an additional 20 cubic feet of soil were removed. Excavated soils were directly loaded into a plastic-lined roll off dumpster located within the Site substation fence line. Eversource coordinated off-site disposal of these soils.

The attached *SEH Status Update Form: Soil* includes the supplemental soil sampling to delineate the SEH exceedances at SB-76 and SB-78 (SB-76A through SB-76D and SB-78A through SB-78D), excavation and abatement of SEH condition soils at SB-78, and an annual update for other previously identified surficial soils that exceed the SEH Condition Notification Threshold Concentration that were identified during previous investigations at the Site.

EVERSOURCE ENERGY

Environmental Affairs Department
107 Selden Street, BMN2
Berlin, CT 06037

The remaining SEH conditions in the surficial soils are proposed to be delineated as part of the continuing Phase III ESA activities in 2022 and abated as part of the site-wide remedial action plan (RAP) which will be prepared once the Phase III ESA is completed at the Site.

Sincerely,
Eversource Energy Service Company

Drew P. Blicharz
Senior Environmental Specialist – Remediation

Enclosure: Significant Environmental Hazard (SEH) Status Update Form: Soil
Cc: Kevin Neary, CT DEEP
Mackenzie Fannon, GEI Consultants
Kathleen Slimon, LEP, GEI Consultants

Significant Environmental Hazard Status Update Form: Soil [Connecticut General Statutes (CGS) Section 22a-6u]

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
BUREAU OF WATER PROTECTION & LAND REUSE
REMEDIATION DIVISION
79 ELM STREET
HARTFORD, CT 06106-5127 www.ct.gov/deep/remediation

Complete and submit this form, accompanied by attachments as requested, to meet the requirement under CGS section 22a-6u(k)(2) to provide a description of any continuing actions being taken to monitor, mitigate, or abate a Significant Environmental Hazard condition in surface soil.

RemID# **DEEP Use Only** SEH#

Part I – Site Identification

Identify the parcel at which a Significant Environmental Hazard (SEH) condition was identified:

Name of Site: Rockville Former MGP Site (REM ID 13641/SEH ID 1075)

Address or Location: 13 Maple Street

City/Town: Rockville/Vernon State: CT Zip Code: 06066

Date(s) DEEP was notified: 2/26/18 DEEP Case Manager (if known): MONICA MESCHIATTI

Part II – SEH Information

A. SEH Condition Reported

☒ 30x Industrial/Commercial Direct Expose Criteria (DEC) (for industrial/commercial use, i.e. non-residential)

☐ 15x Industrial/Commercial DEC (for metals or PCBs at industrial/commercial properties that are within 300 feet of a current residential use)

☐ 15x Residential DEC (for current residential use)

B. Has the extent of the SEH condition been fully delineated horizontally and vertically in the top two feet of soil, pursuant to CGS section 22a-6u(d)(3)(A)?

Yes ☐ No ☒ Date report delineating SEH condition submitted:

C. A site map is attached depicting the specific locations and extent of the soil contamination, including contaminant concentrations that exceed SEH notification thresholds. ☒

Part III – SEH Mitigation Status Update

Describe any steps being taken to delineate, monitor, mitigate, and/or abate the SEH condition and any proposed future actions, pursuant to CGS section 22a-6u(d)(3).

A. Report Frequency

1. Annual reports are due on **June 1st** of each year using this form.
   This submittal is the annual report. ☒
2. **In the event that mitigation measures fail, a supplemental report, using this form, is required within 30 days of discovery of such event and must describe how this condition was addressed in C.4. below.** This submittal is a supplemental report. ☐

B. SEH Mitigation

1. Area that exceeds SEH soil notification thresholds is:

Covered by pavement maintained in good condition	YES ☐	NO ☒
Fenced off from the general public	YES ☒	NO ☐
Identified by posted warning signs	YES ☒	NO ☐

2. Provide any additional details of the mitigation measures taken to prevent exposure to the contaminated soil exceeding the SEH notification threshold. CHECK IF NONE ☐

Soils with detections of benzo(a)pyrene (BaP) above the SEH Threshold Concentration remain secured within fencing and demarcated with no trasspassing and warning signs.GEI collected soil samples from eight locations to delineate the BaP SEH exceedances at SB-76 and SB-78. The SEH condition at SB-78 has been delineated and excavated. The W, N, and S extent has been delinated at SB-76. The eastern extent of BaP will be targeted for delineation as part of the on-going Phase III ESA activities.

C. Inspection and Maintenance of Mitigation Measures

1. List dates of inspection since last annual report (mm/dd/yy):

3/4/22	5/16/22		

2. Checklist for inspection of mitigation measures for most recent inspection:

☐ Yes	☐ No	☒ NA	Cracking of asphalt or concrete?
☐ Yes	☒ No	☐ NA	Changes in surface profile (settling, potholes, roots)?
☐ Yes	☒ No	☐ NA	Exposed geotextile membrane or soil erosion?
☒ Yes	☐ No	☐ NA	New construction, paving, or landscaping?
☐ Yes	☒ No	☐ NA	Opening in fence that could allow access?
☒ Yes	☐ No	☐ NA	Warning signs present and legible?
☐ Yes	☐ No	☒ NA	Other conditions - describe:

3. Provide current photo documentation of mitigation measures.

Date of photos: 5/16/22 PHOTOS ATTACHED ☒

4. Describe any maintenance of mitigation measures that has been completed since the last report. CHECK IF NONE ☐

Approximately 360 ft3 (~18 tons) of soil was excavated to address the SEH condition detected at SB-78. The extent of the excavation was the delineation borings, SB-78A through SB-78D, which were collected by GEI in March 2022. Excavated soil was directly loaded into a plastic-lined roll off dumspter for off-site disposal. Documentation for soil disposal will be provided in the 2022 Annual Report.

Part IV – SEH Abatement Update

A. Abatement Status

1. ☐ SEH condition has been abated (complete Part IV.B.)
2. Date abatement plan (to be) submitted:
3. Anticipated date of completion of abatement:

B. Abatement Details

1. SEH condition has been abated such that notice would not be required under CGS section 22a-6u(k)(3) by:

   ☐ Removal of soil above notification threshold values in the top two feet of soil.

   ☐ Rendering the soil inaccessible as defined in the Remediation Standard Regulations ("RSRs," sections 22a-133k-1 through -3 of the Regulations of Connecticut State Agencies).

   ☐ Remediation of the release in accordance with the RSRs.

2. ☐ A report describing actions taken to permanently abate the SEH condition is attached.

   a. ☐ A table of analytical data that are the basis for determining that a SEH condition no longer exists is included in the attached report.

   b. ☐ A site map indicating the location of samples identifying that the SEH condition has been fully abated is included in the attached report.

3. If a report(s) has (have) already been submitted that documents the abatement of the SEH condition, list the reports below for reference. CHECK IF NONE ☒

Report Name	Preparer	Submittal Date (mm/dd/yy)	DEEP Unit Name (where submitted)

Part V – Party Identification and Contact Information

A. Site Owner Has this information changed? Yes ☐ No ☐

Owner Name: The Connecticut Light and Power Company dba Eversource Energy

Contact Person: Drew P. Blicharz Title: Senior Environmental Specialist

Contact E-mail: drew.blicharz@eversource.com Contact Phone:860-665-5751 Ext.

Mailing Address: 107 Selden Street

City/Town: Berlin State:CT Zip Code: 06037

B. Environmental Consultant Has this information changed? Yes ☒ No ☐

Name: Kathleen F. Slimon Title: P.E., LEP

Firm: GEI Consultants, Inc

E-mail: kslimon@geiconsultants.com Phone: 860-608-9721 Ext.

Mailing Address: 455 Winding Brook Drive, Suite 201

City/Town: Glastonbury State: CT Zip Code: 06033

C. Entity Acting on Behalf of the Owner Has this information changed? Yes ☐ No ☒

If the person signing this form is not the site owner, describe that person's relationship to the site and its owner and enter contact information below. If an entity who is not the site owner is acting on behalf of the owner to mitigate or abate the hazard condition, provide details of this agreement.

Contact Name:

Contact Person: Title:

Contact E-mail: Contact Phone: Ext.

Mailing Address:

City/Town: State: Zip Code:

Part VI – Signature of Property Owner or Entity Acting on Owner's Behalf

"I have personally examined and am familiar with the information submitted in this document and all attachments, and certify that based on reasonable investigation the submitted information is true and accurate to the best of my knowledge and belief. I certify that this form is complete and accurate as prescribed by the Commissioner without alteration of the text."

Name: Drew P. Blicharz Title (if applicable): Senior Environmental Specialist

Signature Drew Blicharz Date: 5/25/2022

SEND COMPLETED FORM TO: REMEDIATION DIVISION
<ATTN: CASE MANAGER, IF KNOWN>
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Table 1. March 2022 SEH Soil Delineation Results
Significant Environmental Hazard Status Update Form: Soil
Rockville Former MGP
Rockville,Vernon, CT

					Sample Name	SB-76-A (0.5-1.0)	SB-76-A (1.0-2.0)	SB-76-B (1.0-2.0)	SB-76-C (1.0-2.0)	SB-76-D (0.5-1.0)	SB-76-D (1.0-2.0)	SB-78-A (0.5-1.0)	SB-78-A (1.0-2.0)
					Sample Date	3/4/2022	3/4/2022	3/4/2022	3/4/2022	3/4/2022	3/4/2022	3/4/2022	3/4/2022
					Depth Interval (ft-bgs)	0.5-1.0	1.0-2.0	1.0-2.0	1.0-2.0	0.5-1.0	1.0-2.0	0.5-1.0	1.0-2.0
Analyte	**Units**	**GB PMC**	**Res DEC**	**I/C DEC**	**I/C SEH Condition Notification Threshold Concentration**								
PAH17	mg/kg												
Acenaphthene		84*	1000*	2500*	75000	**3.5 J**	**0.31**	< 0.260	< 0.260	< 0.280	< 0.270	< 0.260	< 0.260
Acenaphthylene		84	1000	2500	75000	**16 J**	**8.9**	**1.3 J**	**0.85 J**	**1.6 J**	**2.1 J**	**0.49 J**	**0.52 J**
Anthracene		400	1000	2500	75000	**13 J**	**6.1**	**0.96 J**	**0.53 J**	**0.82 J**	**1.6 J**	**0.38 J**	**2.2 J**
Benzo(a)anthracene		1	1	7.8	234	**19 J**	**37**	**7.5**	**1.7**	**3**	**10**	**1.3**	**11**
Benzo(b)fluoranthene		1	1	7.8	234	**8.4**	**27**	**8**	**2.8**	**2.4**	**8.1**	**1.2**	**8.7**
Benzo(k)fluoranthene		1	8.4	78	2340	**5.9**	**30**	**7.1**	**2.7**	**2.5**	**8.2**	**1.3**	**9.3**
Benzo(g,h,i)perylene		1*	8.4*	78*	2340*	**6 J**	**15**	**4.8**	**2.5**	**2.3**	**4.5**	**1**	**4.3**
Benzo(a)pyrene		1	1	1	30	**14 J**	**36**	**11**	**3.2**	**3.1**	**11**	**1.5**	**11**
Chrysene		1*	84*	780*	23400*	**21 J**	**37**	**9.4**	**1.9**	**3.4**	**10**	**1.5**	**10**
Dibenz(a,h)anthracene		1*	1*	1*	30*	**2.1**	**7.2**	**1.8**	**0.76**	**0.62**	**1.6**	< 0.260	**1.7**
Fluoranthene		56	1000	2500	75000	**32 J**	**44**	**11**	**1.9 J**	**3.4 J**	**12**	**1.9 J**	**15**
Fluorene		56	1000	2500	75000	**23 J**	< 0.270	< 0.260	< 0.260	< 0.280	< 0.270	< 0.260	< 0.260
Indeno(1,2,3-cd)pyrene		1*	1*	7.8*	234*	**6.3 J**	**28**	**5.7**	**2.8**	**2.4**	**5.1**	**1**	**5.5**
2-Methylnaphthalene		5.6*	270*	1000*	30000*	**35 J**	**0.98**	< 0.260	< 0.260	< 0.280	**0.31**	< 0.260	**0.84**
Naphthalene		56	1000	2500	75000	**26 J**	**2.4 J**	**0.53 J**	**0.41 J**	**0.38 J**	**0.73 J**	< 0.260	**1 J**
Phenanthrene		40	1000	2500	75000	**87 J**	**16**	**1.9 J**	**0.8 J**	**1.7 J**	**2.4 J**	**1.4 J**	**10**
Pyrene		40	1000	2500	75000	**43 J**	**53**	**12**	**2.3 J**	**5.6 J**	**14**	**2.3 J**	**13**
Other													
Percent Solids	%	NE	NE	NE		**86**	**85**	**86**	**88**	**83**	**83**	**91**	**87**

Table 1. March 2022 SEH Soil Delineation Results
Significant Environmental Hazard Status Update Form: Soil
Rockville Former MGP
Rockville,Vernon, CT

Analyte	Units	GB PMC	Res DEC	I/C DEC	I/C SEH Condition Notification Threshold Concentration	Sample Name Sample Date Depth Interval (ft-bgs) SB-78-B (0.5-1.0)	SB-78-B (1.0-2.0)	SB-78-C (0.5-1.0)	SB-78-C (1.0-2.0)	SB-78-D (0.5-1.0)	SB-78-D (1.0-2.0)
						3/4/2022 0.5-1.0	3/4/2022 1.0-2.0	3/4/2022 0.5-1.0	3/4/2022 1.0-2.0	3/4/2022	3/4/2022 1.0-2.0
PAH17	mg/kg										
Acenaphthene		84*	1000*	2500*	75000	< 0.250	< 0.250	**0.53**	< 260	< 0.280	< 0.270
Acenaphthylene		84	1000	2500	75000	**0.86 J**	**1.6 J**	**4.2 J**	**1.1 J**	**0.39 J**	**1.1 J**
Anthracene		400	1000	2500	75000	**0.34 J**	**0.60 J**	**11**	**2.2 J**	**0.73 J**	**1.4 J**
Benzo(a)anthracene		1	1	7.8	234	**0.85**	**1.1**	**27**	**13**	**3.1**	**6.3**
Benzo(b)fluoranthene		1	1	7.8	234	**1.2**	**1.3**	**31**	**9.9**	**3.5**	**5.2**
Benzo(k)fluoranthene		1	8.4	78	2340	**1.2**	**1.6**	**9.3**	**7.3**	**3.6**	**5**
Benzo(g,h,i)perylene		1*	8.4*	78*	2340*	**1.7**	**2**	**7.2**	**5**	**2.7**	**3.2**
Benzo(a)pyrene		1	1	1	30	**1.7**	**1.5**	**22**	**12**	**4.2**	**5.8**
Chrysene		1*	84*	780*	23400*	**1.1**	**1.5**	**24**	**12**	**3.2**	**6.1**
Dibenz(a,h)anthracene		1*	1*	1*	30*	**0.43**	**0.57**	**3**	**2**	**1.1**	**1.2**
Fluoranthene		56	1000	2500	75000	**0.99 J**	**1.3 J**	**45**	**18**	**4.3 J**	**9.6**
Fluorene		56	1000	2500	75000	< 0.250	**0.26**	**4.7**	**0.37**	< 280	**0.62**
Indeno(1,2,3-cd)pyrene		1*	1*	7.8*	234*	**1.8**	**1.9**	**14**	**6.7**	**3.6**	**3.9**
2-Methylnaphthalene		5.6*	270*	1000*	30000*	< 0.250	**0.44**	**0.71**	< 0.260	< 280	**0.43**
Naphthalene		56	1000	2500	75000	< 0.250	**0.35 J**	**1.9 J**	**0.56 J**	< 280	**0.79 J**
Phenanthrene		40	1000	2500	75000	**0.39 J**	**0.92 J**	**36**	**6.4 J**	**1.5 J**	**5.2 J**
Pyrene		40	1000	2500	75000	**1.5 J**	**0.24 J**	**40**	**17**	**4.0 J**	**9.4**
Other											
Percent Solids	%	NE	NE	NE		**92**	**90**	**86**	**88**	**82**	**87**

Table 1. March 2022 SEH Soil Delineation Results
Significant Environmental Hazard Status Update Form: Soil
Rockville Former MGP
Rockville,Vernon, CT

Notes:

% = Percent
mg/kg = milligrams per kilogram

PAH = Polycyclic Aromatic Hydrocarbon
ft-bgs= feet below ground surface

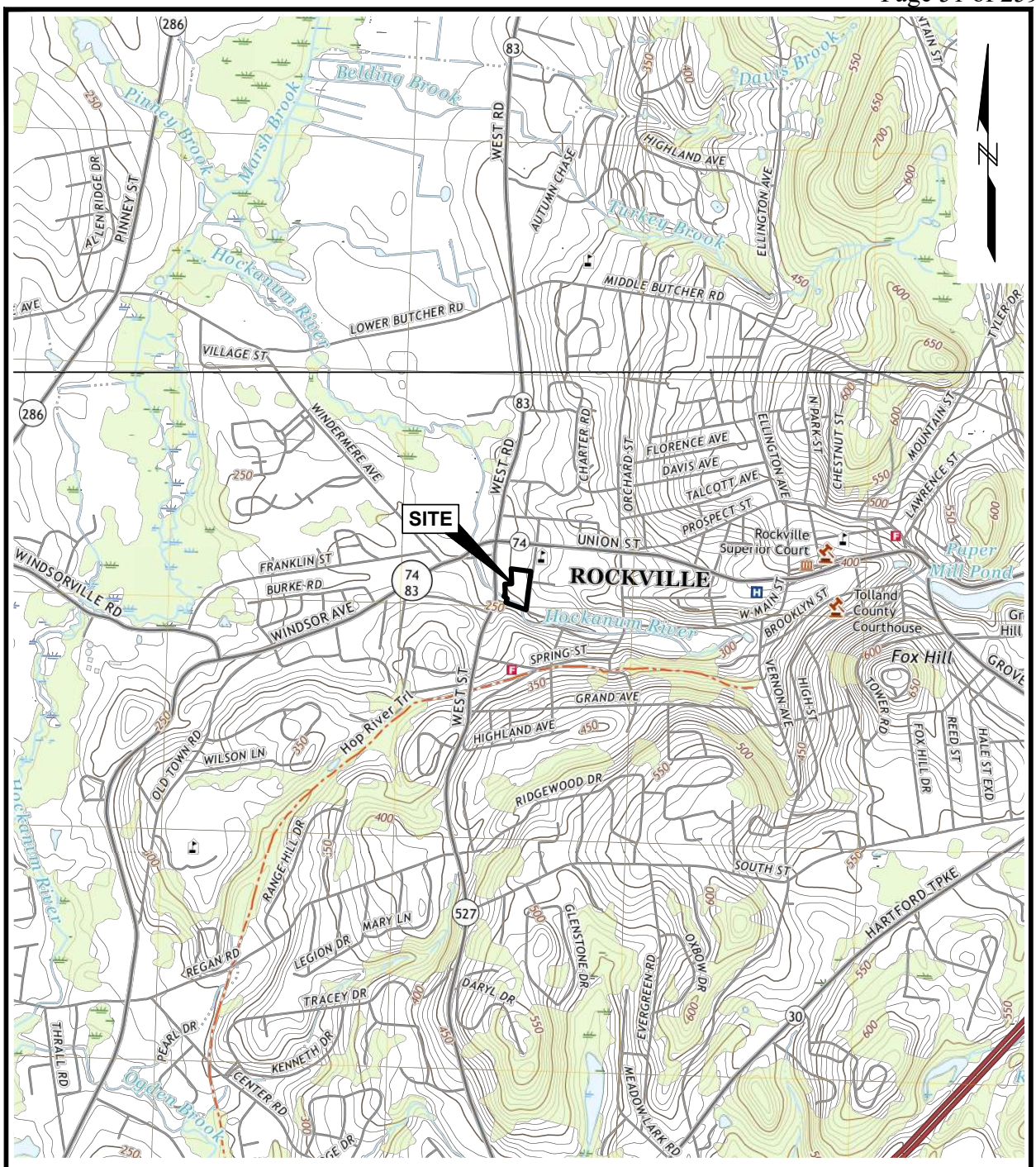
Ammended Remediation Standard Regulations (RSRs) of the Regulations of Connecticut State Agencies (RCSA) 22a-133k-1 through 22a-133k-3. The effective date of the amended RSRs is March 9, 2021 used in combination with 2018 CAPS where the RSR criteria are not available.
* indicates value is obtained from 2018 Technical Support Document (TSD) for Common Additional Polluting Substances (CAPS
I/C DEC = Industrial/commercial direct exposure criteria means the concentrations identified as industrial/commercial direct exposure criteria in Appendix A to RCSA sections 22a-133k-1 through 22a-133k-3.
Res DEC = Residential direct exposure criteria means the concentrations identified as residential direct exposure criteria in Appendix A to RCSA sections 22a-133k-1 through 22a-133k-3.
GB = Area where the ground-water classification is GB. Designated uses: industrial process water and cooling waters; baseflow for hydraulically connected surface water bodies; presumed not suitable for human consumption without treatment.
PMC = Pollutant mobility criteria means the concentrations identified in Appendix B to RCSA sections 22a-133k-1 through 22a-133k-3, or any alternative pollutant mobility criteria approved by the Commissioner pursuant to RCSA subsection 22a-133k-2(d).

CAS No. = Chemical Abstracts Service Number
MGP = Manufactured Gas Plant
NE = Not Established

Bolding indicates a detected result concentration
Shading and bolding indicates that the detected concentration is above the CT RSR it was compared to
Light gray shading indicates a GB PMC exceedance
Dark gray shading indicates a Res DEC and GB PMC exceedance
Yellow shading indicates a I/C DEC, Res DEC and GB PMC exceedance
Red text indicates a SEH Condition Notification Threshold Concentration exceedance

Validation Qualifiers:

< = The analyte was not detected at a concentration above the specified laboratory reporting limit.
J = The result is an estimated value.



SOURCE:
MAP CREATED ROCKVILLE, CT QUADRANGLE, 7.5-MINUTE USGS TOPOGRAPHIC MAP, 2021 AND ELLINGTON, CT QUADRANGLE, 7.5-MINUTE USGS TOPOGRAPHIC MAP, 2021.

Significant Environmental Hazard Status Update Form: Soil Rockville Former MGP Site Rockville, Vernon, Connecticut	GEI Consultants	SITE LOCATION MAP
Eversource Energy Berlin, Connecticut	Project 2200138	May 2022 Fig. 1

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Sample ID	Benzo(a)pyrene SEH Condition Notification Threshold Concentration (mg/kg)	Concentraion Detected in Sample (mg/kg)
Outer Substation Area		
HA-18 (0-2')	30	86
Inner Substation Area		
HA-01A (1-1.5')	30	53
HA-02 (1.5-2')	30	33
HA-03 (0.5-1')	30	32
SS-102 (0-0.5')	30	45
SB-76 (0-2')	30	42
SB-76A (1-2')	30	36

LEGEND:

SIGNIFICANT ENVIRONMENTAL HAZARD
- PREVIOUS SOIL SAMPLE
- AREA OF SOIL EXCAVATION
- BENZO(A)PYRENE DETECTED ABOVE SEH NOTIFICATION THRESHOLD CONCENTRATION
- CONCENTRATIONS OF BENZO(A)PYRENE ABOVE SEH CONDITION NOTIFICATION THRESHOLD CONCENTRATION

SUPPLEMENTAL SUBSTATION INVESTIGATION
- SUPPLEMENTAL SUBSTATION BORING (2022)

PREVIOUS SITE INVESTIGATION
- MONITORING WELL
- SOIL BORING
- SURFACE SOIL SAMPLE
- TEST PIT
- SEDIMENT SAMPLE
- SURFACE WATER SAMPLE
- HISTORIC STRUCTURE
- STREAM
- FENCE LINE
- SITE BOUNDARY

INSET

SOURCES:
1. ALL PREVIOUS SAMPLE LOCATION DATA PROVIDED BY TIGHE & BOND.
2. WORLD IMAGERY LAYER, Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 20 40
SCALE, FEET

Significant Environmental Hazard Status Update Form: Soil
Rockville Former MGP Site
Rockville, Vernon, Connecticut

Eversource Energy
Berlin, Connecticut

GEI Consultants

SIGNIFICANT ENVIRONMENTAL HAZARD (SEH) INVESTIGATION AND EXCAVATION LOCATIONS

Project 2200138 | May 2022 | Fig. 2

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Rockville Former MGP

Significant Environmental Hazard Status Update Form: Soil
Date Photographed: May 16, 2022
Address: 13 Maple Street, Rockville, Vernon, Connecticut

Photo Log Index

Photo No. 1 – Excavation of SEH condition at SB-78 on May 16, 2022 (facing east). 1
Photo No. 2 – Black stained fill in soil along northwestern sidewall of the excavation (facing north-northwest). 1
Photo No. 3 – Removal of black stained soils along northwestern sidewall (facing north). 2
Photo No. 4 – SEH condition area (SS-102, HA-01A, HA-02 and HA-03) within the inner substation (facing north). 2
Photo No. 5 – SEH condition area (SS-102, HA-01A, HA-02 and HA-03) within the inner substation (facing east). 3
Photo No. 6 – SEH condition area (SS-102, HA-01A, HA-02 and HA-03) within the inner substation (facing south). 3
Photo No. 7 – SEH condition area (SB-76 and SB-76A) within the inner substation (facing east). 4
Photo No. 8 – SEH condition area (HA-18) fenced off within wooded area of outer substation (facing southwest). 4

Rockville Former MGP
Significant Environmental Hazard Status Update Form: Soil
Date Photographed: May 16, 2022
Address: 13 Maple Street, Rockville, Vernon, Connecticut



Photo No. 1 – Excavation of SEH condition at SB-78 on May 16, 2022 (facing east).



Photo No. 2 – Black stained fill in soil along northwestern sidewall of the excavation (facing north-northwest).

Rockville Former MGP
Significant Environmental Hazard Status Update Form: Soil
Date Photographed: May 16, 2022
Address: 13 Maple Street, Rockville, Vernon, Connecticut



Photo No. 3 – Removal of black stained soils along northwestern sidewall (facing north).



Photo No. 4 – SEH condition area (SS-102, HA-01A, HA-02 and HA-03) within the inner substation (facing north).

Rockville Former MGP
Significant Environmental Hazard Status Update Form: Soil
Date Photographed: May 16, 2022
Address: 13 Maple Street, Rockville, Vernon, Connecticut



Photo No. 5 – SEH condition area (SS-102, HA-01A, HA-02 and HA-03) within the inner substation (facing east).



Photo No. 6 – SEH condition area (SS-102, HA-01A, HA-02 and HA-03) within the inner substation (facing south).

Rockville Former MGP
Significant Environmental Hazard Status Update Form: Soil
Date Photographed: May 16, 2022
Address: 13 Maple Street, Rockville, Vernon, Connecticut



Photo No. 7 – SEH condition area (SB-76 and SB-76A) within the inner substation (facing east).



Photo No. 8 – SEH condition area (HA-18) fenced off within wooded area of outer substation (facing southwest).

Appendix B

Soil Vapor Assessment Memo

Memo

To: Mr. Andrew Blicharz, LEP, Eversource Energy

From: Kathleen Slimon, P.E., LEP, GEI Consultants, Inc.

c: Mackenzie Fannon and Jeffrey Holden. P.E., LEP, GEI Consultants, Inc.

Date: June 21, 2022

Re: Soil Vapor Assessment
Rockville Former MGP Site
Vernon, Rockville, CT
GEI Project No. 2200138

This memo provides the results of the soil vapor assessment performed at the Rockville former manufactured gas plant (MGP) site (Site) in March 2022 by GEI Consultants, Inc. on behalf of the Connecticut Light and Power Company (CL&P) dba Eversource Energy (Eversource). The Site is located at 13 Maple Street, in the Rockville section of Vernon, Connecticut, Fig. 1.

A summary of the background, the scope of work and the results are provided below.

Background

The 3.43-acre Site is bounded by a wooded lot, a church, and residential properties to the north, Maple Street to the east, the Hockanum River and West Main Street to the south, and residential properties with frontage on West Street (Route 527) to the west (Fig. 2).

The Site is currently used as an electrical substation, Eversource's Substation 14W. The substation is enclosed by a locked fence that limits access to authorized personnel only. The Inner Substation Area includes the active electrical substation infrastructure including high voltage power lines, towers, transformers, and electrical control houses. Subsurface electrical power supply ducts and substation grounding grid are located beneath a crushed gravel cover inside the Inner Substation. Access to the Inner Substation is restricted by a high security fence equipped with barbed wire. Eversource requires notification and specialized training prior to entry to the inner substation, and appropriate escort by qualified personnel.

The remainder of the Site is referred to as the Outer Substation area, which includes all areas outside the Inner Substation. The Outer Substation includes a grassed area surrounding the eastern and northern sides of the Site. A fenced area with a high-pressure gas regulator/control house is located on the western portion of the Outer Substation Area. The Hockanum River is in the Outer Substation Area and abuts the Inner Substation Area to the south. Wooded and overgrown areas are located on the northern portion of the Site adjacent to the St. Joseph's Church paved parking lot and along the southern portion of the Site between the Hockanum River and West Main Street.

Groundwater collected from groundwater monitoring well MW-35S located within the inner substation exceeded the residential and industrial/commercial volatilization criteria for groundwater (RES VC) and (I/C VC) for ETPH and volatile petroleum hydrocarbons in June, September, and December 2019, and March 2020. In accordance with CT DEEP RSR Section 22a-133k-3(c)(1)(C)

the VC is applicable to volatile petroleum substances within 10 feet or less of the ground surface or within 10 feet or less of the lowest portion of a building. Depth to groundwater at MW-35S is approximately 8.5 feet below ground surface and MW-35S is located adjacent to a control house building (Fig. 2).

In accordance with CT DEEP RSR Section 22a-133k-3(c)(1)(A) for Soil Vapor Below a Building VOCs in groundwater do not need to be remediated to the VC if the concentration of such substances in soil vapors beneath the building are equal to or less than the applicable volatilization criteria for soil vapor. The I/C volatilization criteria for soil vapor may be applied if the building is used for industrial or commercial purposes and an EUR is in place.

Scope of Work

During the winter heating season in March 2022, GEI completed soil vapor sampling to determine whether soil vapor beneath the control house has been impacted by VOCs, specifically volatile fractions of ETPH, referred to as air-phase petroleum hydrocarbons (APH), at concentrations above the RES VC or I/C VC. One temporary soil vapor point (Vapor Pin®) was installed through the control house slab in accordance with GEI SOP SG-003 – Sub-Slab Soil Vapor Collection. The soil vapor pin was installed following the manufacturer's recommended procedures as follows: a 1½-inch diameter hole was drilled at least 1¾-inches into the slab. A 5/8-inch diameter hole was then drilled through the slab and approximately 1-inch into the underlying soil to form a void. After removal of the drill bit, the hole was cleaned of debris with a bottle brush, and loose cuttings were removed with a vacuum. The lower end of a VAPOR PIN® assembly was placed into the drilled hole utilizing an installation/extraction tool over the vapor pin to protect the barb fitting and driven into the hole using a dead blow hammer. After installation, a cap was placed on the pin.

GEI collected one soil vapor sample (4-hour) in accordance with GEI SOP SG-003. The soil vapor sample was submitted under chain-of-custody protocols to Phoenix Laboratories in Manchester, Connecticut and analyzed for VOCs by EPA Method TO-15 and APH via Massachusetts Department of Protection APH Method. After sample collection, the soil vapor point was sealed with a cap and left in place for potential future sampling.

Results

The laboratory data package is provided in Attachment A and the soil vapor sampling analytical results for detected compounds compared to the residential and I/C volatilization criteria for soil vapor (RSR Section 22a-133k Appendix F) are provided in Table 1. The detected concentrations of VOCs and ETPH are below both the residential and I/C volatilization criteria for soil vapor and therefore meet the CT DEEP RSR Section 22a-133k-3(c)(1)(A) Alternative Demonstration of Compliance with Volatilization Criteria for Groundwater for Soil Vapor Below a Building.

Attachments:

Table 1. Detected Sub-Slab Soil Vapor Analysis Results
Fig. 1 – Site Location Map
Fig. 2 – Site Layout and Soil Vapor Sampling Location
Attachment A. Laboratory Data

[KS:bdp]
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Table 1. Detected Sub-Slab Soil Vapor Analysis Results
Rockville Former MGP Site
Eversource
Vernon, CT

					Sample Name	SV-CH-1
					Sample Date	3/4/2022
Analyte	**Units**	**CAS No.**	**Res VC for Soil Vapor**	**I/C VS for Soil Vapor**		
MAAPH	ug/m^3					
Benzene		71-43-2	2500	4600		**1.55**
Naphthalene		91-20-3	NE	NE		**1.85**
Toluene		108-88-3	160000	690000		**6.89**
o-Xylene		95-47-6	170000	690000		**2.34**
m/p-Xylene		179601-23-1	170000	690000		**5.03**
C5-C8 Aliphatics		N/A	100000*	460000*		**2000**
C9-C12 Aliphatics		N/A	90000*	415000*		**2300**
C9-C10 Aromatics		N/A	10000*	60000*		**120**
TO-15	ug/m^3					
Acetone		67-64-1	140000	690000		**37.3**
Benzene		71-43-2	2500	4600		**1.38**
Ethanol		64-17-5	NE	NE		**250**
n-Heptane (C7)		142-82-5	NE	NE		**5.24**
n-Hexane (C6)		110-54-3	280000*	690000*		**3.12**
Methyl ethyl ketone (2-Butanone)		78-93-3	376000	690000		**5.36**
Naphthalene		91-20-3	NE	NE		**0.95**
2-Propanol (Isopropyl Alcohol)		67-63-0	NE	NE		**9.58**
Tetrahydrofuran		109-99-9	310*	3800*		**1.73**
Toluene		108-88-3	160000	690000		**5.69**
1,2,4-Trimethylbenzene		95-63-6	20000*	200000*		**3.09**
o-Xylene		95-47-6	170000	690000		**2.42**
m/p-Xylene		179601-23-1	170000	690000		**4.99**

Notes:

ug/m^3 = micrograms per cubic meter

Amended Remediation Standard Regulations (RSRs) of the Regulations of Connecticut State Agencies (RCSA) 22a-133k-1 through 22a-133k-3. The effective date of the amended RSRs is March 9, 2021 used in combination with 2018

* indicates value is obtained from 2018 Technical Support Document (TSD) for Common Additional Polluting Substances (CAPS)

I/C VC for Soil Vapor = Industrial/Commercial volatilization criteria for soil vapor means the concentrations identified in Appendix F to RSRs 22a-133k.

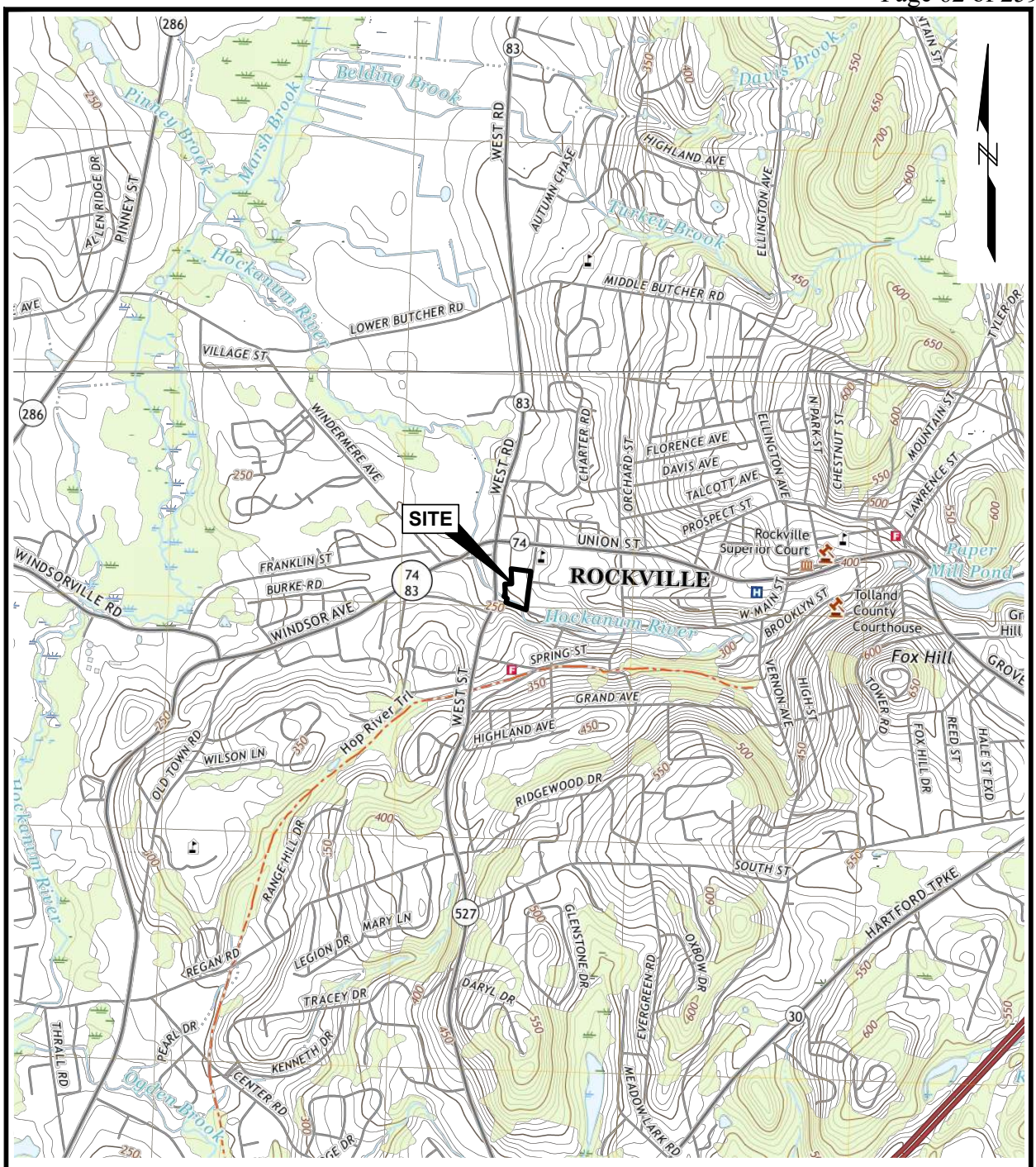
Res VC for Soil Vapor = Residential volatilization criteria for soil vapor means the concentrations identified in Appendix F to RSRs 22a-133k.

CAS No. = Chemical Abstracts Service Number

MGP = Manufactured Gas Plant
NE = Not Established

Bolding indicates a detected result concentration
Shading and bolding indicates that the detected concentration is above the CT RSR it was compared to

Validation Qualifiers:
< = The analyte was not detected at a concentration above the specified laboratory reporting limit.



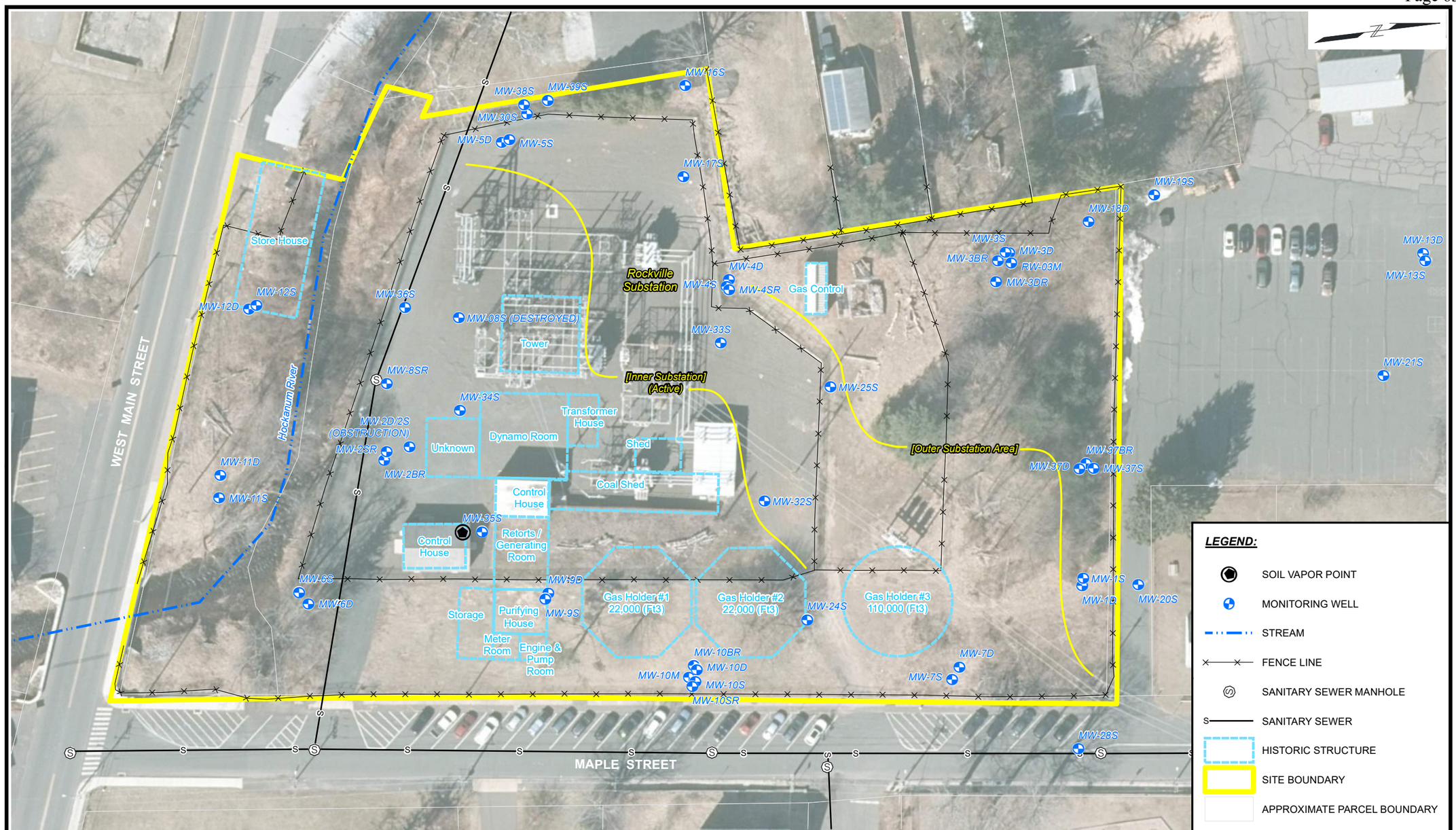
SOURCE:
MAP CREATED ROCKVILLE, CT QUADRANGLE, 7.5-MINUTE USGS TOPOGRAPHIC MAP, 2021 AND ELLINGTON, CT QUADRANGLE, 7.5-MINUTE USGS TOPOGRAPHIC MAP, 2021.

0 2000 4000

SCALE: 1" = 2000'

Soil Vapor Assessment Memo Rockville Former MGP Site Rockville, Vernon, Connecticut	GEI Consultants	SITE LOCATION MAP
Eversource Energy Berlin, Connecticut	Project 2200138	June 2022 Fig. 1

\\geiconsulta B:\Working\EVERSOURCE\2200138 Rockville MGP Supp. Ph II_III ESA\00_CAD\Figures\SVAM\2200138_SVAM_SLM.dwg - 6/20/2022



SOURCES:
1. DATA PROVIDED BY TIGHE & BOND.
2. WORLD IMAGERY LAYER, Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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SCALE, FEET

Soil vapor Assessment Memo
13 Maple Street
Rockville, Vernon, Connecticut

Eversource Energy
Berlin, Connecticut

GEI Consultants

SITE LAYOUT AND SOIL VAPOR SAMPLING LOCATION

Project 2200138 | June 2022 | Fig. 2

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Attachment A

Laboratory Data

PHOENIX
Environmental Laboratories, Inc.

Thursday, March 10, 2022

Attn:
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Project ID: **ROCKVILLE MGP**
SDG ID: **GCK79978**
Sample ID#s: **CK79978**

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

March 10, 2022

SDG I.D.: GCK79978

Project ID: ROCKVILLE MGP

Client Id	Lab Id	Matrix
SV-CH-1	CK79978	AIR

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 10, 2022

FOR: Attn:
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	PB	03/04/22	13:37
Location Code:	GEI-EVER	Received by:	CP	03/04/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	12869				

Laboratory Data

SDG ID: GCK79978
Phoenix ID: CK79978

Project ID: ROCKVILLE MGP
Client ID: SV-CH-1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Volatiles TO15							
1,1,1,2-Tetrachloroethane	ND	*0.500*	ND	*3.43*	03/07/22	KCA	1
1,1,1-Trichloroethane	ND	*0.500*	ND	*2.73*	03/07/22	KCA	1
1,1,2,2-Tetrachloroethane	ND	*0.020*	ND	*0.14*	03/07/22	KCA	1
1,1,2-Trichloroethane	ND	*0.020*	ND	*0.11*	03/07/22	KCA	1
1,1-Dichloroethane	ND	*0.150*	ND	*0.61*	03/07/22	KCA	1
1,1-Dichloroethene	ND	*0.200*	ND	*0.79*	03/07/22	KCA	1
1,2,4-Trichlorobenzene	ND	*0.054*	ND	*0.40*	03/07/22	KCA	1
1,2,4-Trimethylbenzene	0.628	*0.500*	3.09	*2.46*	03/07/22	KCA	1
1,2-Dibromoethane(EDB)	ND	*0.020*	ND	*0.15*	03/07/22	KCA	1
1,2-Dichlorobenzene	ND	*0.100*	ND	*0.60*	03/07/22	KCA	1
1,2-Dichloroethane	ND	*0.020*	ND	*0.08*	03/07/22	KCA	1
1,2-dichloropropane	ND	*0.020*	ND	*0.09*	03/07/22	KCA	1
1,2-Dichlorotetrafluoroethane	ND	*0.500*	ND	*3.49*	03/07/22	KCA	1
1,3,5-Trimethylbenzene	ND	*0.500*	ND	*2.46*	03/07/22	KCA	1
1,3-Butadiene	ND	*0.500*	ND	*1.11*	03/07/22	KCA	1
1,3-Dichlorobenzene	ND	*0.100*	ND	*0.60*	03/07/22	KCA	1
1,4-Dichlorobenzene	ND	*0.080*	ND	*0.48*	03/07/22	KCA	1
1,4-Dioxane	ND	*0.130*	ND	*0.47*	03/07/22	KCA	1
2-Hexanone(MBK)	ND	*0.500*	ND	*2.05*	03/07/22	KCA	1
4-Ethyltoluene	ND	*0.500*	ND	*2.46*	03/07/22	KCA	1
4-Isopropyltoluene	ND	*0.500*	ND	*2.74*	03/07/22	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	*0.500*	ND	*2.05*	03/07/22	KCA	1
Acetone	15.7	*0.750*	37.3	*1.78*	03/07/22	KCA	1
Acrylonitrile	ND	*0.500*	ND	*1.08*	03/07/22	KCA	1
Benzene	0.433	*0.200*	1.38	*0.64*	03/07/22	KCA	1
Benzyl chloride	ND	*0.500*	ND	*2.59*	03/07/22	KCA	1

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SV-CH-1

Phoenix I.D.: CK79978

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	*0.020*	ND	*0.13*	03/07/22	KCA	1
Bromoform	ND	*0.150*	ND	*1.55*	03/07/22	KCA	1
Bromomethane	ND	*0.140*	ND	*0.54*	03/07/22	KCA	1
Carbon Disulfide	ND	*0.500*	ND	*1.56*	03/07/22	KCA	1
Carbon Tetrachloride	ND	*0.086*	ND	*0.54*	03/07/22	KCA	1
Chlorobenzene	ND	*0.200*	ND	*0.92*	03/07/22	KCA	1
Chloroethane	ND	*0.500*	ND	*1.32*	03/07/22	KCA	1
Chloroform	ND	*0.200*	ND	*0.98*	03/07/22	KCA	1
Chloromethane	ND	*0.500*	ND	*1.03*	03/07/22	KCA	1
Cis-1,2-Dichloroethene	ND	*0.200*	ND	*0.79*	03/07/22	KCA	1
cis-1,3-Dichloropropene	ND	*0.100*	ND	*0.45*	03/07/22	KCA	1
Cyclohexane	ND	*0.500*	ND	*1.72*	03/07/22	KCA	1
Dibromochloromethane	ND	*0.020*	ND	*0.17*	03/07/22	KCA	1
Dichlorodifluoromethane	ND	*0.500*	ND	*2.47*	03/07/22	KCA	1
Ethanol	133	*3.75*	250	*7.06*	03/06/22	KCA	5
Ethyl acetate	ND	*0.500*	ND	*1.80*	03/07/22	KCA	1
Ethylbenzene	ND	*0.500*	ND	*2.17*	03/07/22	KCA	1
Heptane	1.28	*0.500*	5.24	*2.05*	03/07/22	KCA	1
Hexachlorobutadiene	ND	*0.020*	ND	*0.21*	03/07/22	KCA	1
Hexane	0.885	*0.450*	3.12	*1.59*	03/07/22	KCA	1
Isopropylalcohol	3.90	*0.750*	9.6	*1.84*	03/07/22	KCA	1
Isopropylbenzene	ND	*0.500*	ND	*2.46*	03/07/22	KCA	1
m,p-Xylene	1.15	*1.00*	4.99	*4.34*	03/07/22	KCA	1
Methyl Ethyl Ketone	1.82	*0.450*	5.36	*1.33*	03/07/22	KCA	1
Methyl tert-butyl ether(MTBE)	ND	*0.500*	ND	*1.80*	03/07/22	KCA	1
Methylene Chloride	ND	*3.00*	ND	*10.4*	03/07/22	KCA	1
Naphthalene	0.182	*0.100*	0.95	*0.52*	03/07/22	KCA	1
n-Butylbenzene	ND	*0.500*	ND	*2.74*	03/07/22	KCA	1
o-Xylene	0.558	*0.500*	2.42	*2.17*	03/07/22	KCA	1
Propylene	ND	*0.500*	ND	*0.86*	03/07/22	KCA	1
sec-Butylbenzene	ND	*0.500*	ND	*2.74*	03/07/22	KCA	1
Styrene	ND	*0.200*	ND	*0.85*	03/07/22	KCA	1
Tetrachloroethene	ND	*0.100*	ND	*0.68*	03/07/22	KCA	1
Tetrahydrofuran	0.586	*0.500*	1.73	*1.47*	03/07/22	KCA	1
Toluene	1.51	*0.500*	5.69	*1.88*	03/07/22	KCA	1
Trans-1,2-Dichloroethene	ND	*0.200*	ND	*0.79*	03/07/22	KCA	1
trans-1,3-Dichloropropene	ND	*0.500*	ND	*2.27*	03/07/22	KCA	1
Trichloroethene	ND	*0.050*	ND	*0.27*	03/07/22	KCA	1
Trichlorofluoromethane	ND	*0.500*	ND	*2.81*	03/07/22	KCA	1
Trichlorotrifluoroethane	ND	*0.500*	ND	*3.83*	03/07/22	KCA	1
Vinyl Chloride	ND	*0.100*	ND	*0.26*	03/07/22	KCA	1
QA/QC Surrogates/Internals							
% Bromofluorobenzene	102	*%*	102	*%*	03/07/22	KCA	1
% IS-1,4-Difluorobenzene	96	*%*	96	*%*	03/07/22	KCA	1
% IS-Bromochloromethane	98	*%*	98	*%*	03/07/22	KCA	1
% IS-Chlorobenzene-d5	105	*%*	105	*%*	03/07/22	KCA	1
% Bromofluorobenzene (5x)	98	*%*	98	*%*	03/06/22	KCA	5
% IS-1,4-Difluorobenzene (5x)	93	*%*	93	*%*	03/06/22	KCA	5
% IS-Bromochloromethane (5x)	95	*%*	95	*%*	03/06/22	KCA	5

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SV-CH-1

Phoenix I.D.: CK79978

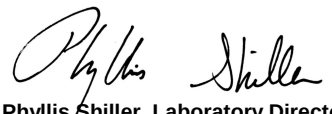
Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
% IS-Chlorobenzene-d5 (5x)	98	%	98	%	03/06/22	KCA	5
APH Hydrocarbon Ranges (MA APH Rev1)							
C5-C8 Aliphatic Hydrocarbons 1,2	n.a.	*n.a.*	2000	*11*	03/09/22	KCA	1
C9-C10 Aromatic Hydrocarbons	n.a.	*n.a.*	120	*10*	03/09/22	KCA	1
C9-C12 Aliphatic Hydrocarbons 1,3	n.a.	*n.a.*	2300	*18*	03/09/22	KCA	1
Target APH Analytes							
1,3-Butadiene	ND	*0.500*	ND	*1.11*	03/09/22	KCA	1
Benzene	0.486	*0.200*	1.55	*0.64*	03/09/22	KCA	1
Ethylbenzene	ND	*0.500*	ND	*2.17*	03/09/22	KCA	1
m,p-Xylene	1.16	*1.00*	5.03	*4.34*	03/09/22	KCA	1
Methyl tert-butyl ether(MTBE)	ND	*0.500*	ND	*1.80*	03/09/22	KCA	1
Naphthalene	0.354	*0.100*	1.85	*0.52*	03/09/22	KCA	1
o-Xylene	0.540	*0.500*	2.34	*2.17*	03/09/22	KCA	1
Toluene	1.83	*0.500*	6.89	*1.88*	03/09/22	KCA	1
QA/QC Surrogates/Internals							
% Bromofluorobenzene	90	%	90	%	03/09/22	KCA	1
% IS-1,4-Difluorobenzene	103	%	103	%	03/09/22	KCA	1
% IS-Bromochloromethane	114	%	114	%	03/09/22	KCA	1
% IS-Chlorobenzene-d5	126	%	126	%	03/09/22	KCA	1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

APH:
*1 Hydrocarbon range data exclude any internals/standards eluting in that range.
*2 C5-C8 Aliphatics exclude the conc. of Target Analytes.
*3 C9-C12 Aliphatics exclude the conc. of Target Analytes and C9-C10 Aromatics.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
March 10, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Canister Sampling Information

March 10, 2022

FOR: Attn:
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Location Code: GEI-EVER

Project ID: ROCKVILLE MGP

SDG I.D.: GCK79978

						Laboratory					Field			
Client Id	Lab Id	Canister Id	Canister Type	Reg. Id	Chk Out Date	Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
SV-CH-1	CK79978	12869	6.0L	5394	03/01/22	-30	-5	21.7	22.2	2.3	-32	-6	03/04/22 09:04	03/04/22 13:37

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

March 10, 2022

QA/QC Data

SDG I.D.: GCK79978

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 614907 (ppbv), QC Sample No: CK79850 (CK79978)												
APH Hydrocarbon Ranges (MA APH Rev1)												
1,3-Butadiene	ND	0.500	ND	1.11	89	ND	ND	ND	ND	NC	70 - 130	20
Benzene	ND	0.200	ND	0.64	99	1.28	1.31	0.402	0.410	NC	70 - 130	20
Ethylbenzene	ND	0.500	ND	2.17	104	5.99	5.95	1.38	1.37	NC	70 - 130	20
m,p-Xylene	ND	1.00	ND	4.34	103	16.8	16.6	3.86	3.82	NC	70 - 130	20
Methyl tert-butyl ether(MTBE)	ND	0.500	ND	1.80	104	ND	ND	ND	ND	NC	70 - 130	20
Naphthalene	ND	0.100	ND	0.52	98	1.80	1.49	0.344	0.284	NC	70 - 130	20
o-Xylene	ND	0.500	ND	2.17	108	9.16	9.46	2.11	2.18	NC	70 - 130	20
Toluene	ND	0.500	ND	1.88	104	11.5	11.9	3.05	3.16	3.5	70 - 130	20
C5-C8 Aliphatic Hydrocarbons 1,2			ND	11	NR	570	530			NC	70 - 130	30
C9-C10 Aromatic Hydrocarbons			ND	10	NR	95	95			NC	70 - 130	30
C9-C12 Aliphatic Hydrocarbons 1,3			ND	18	NR	490	500			NC	70 - 130	30
% Bromofluorobenzene	89	%	89	%	102	98	96	98	96	NC	70 - 130	20
% IS-1,4-Difluorobenzene	91	%	91	%	110	96	95	96	95	NC	60 - 140	25
% IS-Bromochloromethane	92	%	92	%	102	95	90	95	90	NC	60 - 140	25
% IS-Chlorobenzene-d5	93	%	93	%	109	101	102	101	102	NC	60 - 140	25
QA/QC Batch 614639 (ppbv), QC Sample No: CK79986 (CK79978 (1X, 5X))												
Volatiles												
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	98	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.200	ND	1.09	100	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.200	ND	1.37	100	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.200	ND	1.09	103	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.200	ND	0.81	95	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.200	ND	0.79	88	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.500	ND	3.71	100	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.200	ND	0.98	105	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.200	ND	1.54	99	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.200	ND	1.20	102	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.200	ND	0.81	96	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.200	ND	0.92	101	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.200	ND	1.40	99	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.200	ND	0.98	102	ND	ND	ND	ND	NC	70 - 130	25
1,3-Butadiene	ND	0.200	ND	0.44	102	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.200	ND	1.20	105	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.200	ND	1.20	106	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.200	ND	0.72	102	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.244	ND	1.00	118	ND	ND	ND	ND	NC	70 - 130	25
4-Ethyltoluene	ND	0.200	ND	0.98	106	ND	ND	ND	ND	NC	70 - 130	25
4-Isopropyltoluene	ND	0.182	ND	1.00	100	ND	ND	ND	ND	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.500	ND	2.05	108	ND	ND	ND	ND	NC	70 - 130	25
Acetone	ND	5.00	ND	11.9	100	12.9	12.9	5.44	5.42	NC	70 - 130	25
Acrylonitrile	ND	0.461	ND	1.00	93	ND	ND	ND	ND	NC	70 - 130	25

QA/QC Data

SDG I.D.: GCK79978

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Benzene	ND	0.200	ND	0.64	98	0.65	ND	0.203	ND	NC	70 - 130	25
Benzyl chloride	ND	0.193	ND	1.00	101	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.200	ND	1.34	104	ND	ND	ND	ND	NC	70 - 130	25
Bromoform	ND	0.200	ND	2.07	100	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.200	ND	0.78	95	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.500	ND	1.56	103	ND	ND	ND	ND	NC	70 - 130	25
Carbon Tetrachloride	ND	0.200	ND	1.26	99	ND	ND	ND	ND	NC	70 - 130	25
Chlorobenzene	ND	0.200	ND	0.92	98	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.500	ND	1.32	101	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.200	ND	0.98	96	ND	ND	ND	ND	NC	70 - 130	25
Chloromethane	ND	0.500	ND	1.03	102	1.20	1.23	0.581	0.597	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.200	ND	0.79	95	ND	ND	ND	ND	NC	70 - 130	25
cis-1,3-Dichloropropene	ND	0.200	ND	0.91	101	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.200	ND	0.69	93	ND	ND	ND	ND	NC	70 - 130	25
Dibromochloromethane	ND	0.200	ND	1.70	100	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.500	ND	2.47	99	2.62	2.55	0.530	0.515	NC	70 - 130	25
Ethanol	ND	5.00	ND	9.42	113	75.3 E	74.2	40.0 E	39.4	1.5	70 - 130	25
Ethyl acetate	ND	0.278	ND	1.00	116	ND	ND	ND	ND	NC	70 - 130	25
Ethylbenzene	ND	0.200	ND	0.87	103	ND	ND	ND	ND	NC	70 - 130	25
Heptane	ND	0.200	ND	0.82	109	ND	ND	ND	ND	NC	70 - 130	25
Hexachlorobutadiene	ND	0.200	ND	2.13	92	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.200	ND	0.70	103	ND	ND	ND	ND	NC	70 - 130	25
Isopropylalcohol	ND	5.00	ND	12.3	104	13.5	13.6	5.51	5.52	NC	70 - 130	25
Isopropylbenzene	ND	0.204	ND	1.00	98	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	0.500	ND	2.17	105	ND	ND	ND	ND	NC	70 - 130	25
Methyl Ethyl Ketone	ND	0.500	ND	1.47	100	ND	ND	ND	ND	NC	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.200	ND	0.72	97	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	0.500	ND	1.74	100	ND	ND	ND	ND	NC	70 - 130	25
Naphthalene	ND	0.500	ND	2.62	119	ND	ND	ND	ND	NC	70 - 130	25
n-Butylbenzene	ND	0.182	ND	1.00	102	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.200	ND	0.87	104	ND	ND	ND	ND	NC	70 - 130	25
Propylene	ND	0.581	ND	1.00	106	ND	ND	ND	ND	NC	70 - 130	25
sec-Butylbenzene	ND	0.182	ND	1.00	100	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.200	ND	0.85	105	ND	ND	ND	ND	NC	70 - 130	25
Tetrachloroethene	ND	0.200	ND	1.36	96	ND	ND	ND	ND	NC	70 - 130	25
Tetrahydrofuran	ND	5.00	ND	14.7	100	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.200	ND	0.75	102	0.95	0.94	0.251	0.250	NC	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.200	ND	0.79	96	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.200	ND	0.91	99	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.200	ND	1.07	101	ND	ND	ND	ND	NC	70 - 130	25
Trichlorofluoromethane	ND	0.200	ND	1.12	97	1.35	1.31	0.240	0.233	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.200	ND	1.53	95	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.200	ND	0.51	99	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	97	%	97	%	105	100	104	100	104	NC	70 - 130	25
% IS-1,4-Difluorobenzene	109	%	109	%	111	99	100	99	100	NC	60 - 140	25
% IS-Bromochloromethane	103	%	103	%	110	99	99	99	99	NC	60 - 140	25
% IS-Chlorobenzene-d5	109	%	109	%	118	99	98	99	98	NC	60 - 140	25

QA/QC Data

SDG I.D.: GCK79978

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
March 10, 2022

Thursday, March 10, 2022

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCK79978 - GEI-EVER

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** GEI Consultants

Project Location: ROCKVILLE MGP ***Project Number:***

Laboratory Sample ID(s): CK79978 ***Sampling Date(s):*** 3/4/2022

List RCP Methods Used (e.g., 8260, 8270, et cetera) TO15, APH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☐ Yes ☐ No ☑ NA
4	**Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?**	☑ Yes ☐ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☐ Yes ☑ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: _____ **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Thursday, March 10, 2022

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

CTDEP RCP Laboratory Analysis QA/QC Certification Form - November 2007
Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocols

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

RCP Certification Report

March 10, 2022

SDG I.D.: GCK79978

AIRAPH

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM20 03/08/22-1 Keith Aloisa, Chemist 03/08/22

CK79978 (1X)

Initial Calibration Evaluation (CHEM20/APH_0308_samp):
100% of target compounds met criteria.
The following compounds had %RSDs >30%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification #1 (CHEM20/0308_01-APH_0308_samp):
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 614907 (CK79850)

CK79978(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.

AIRSIM

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM20 03/06/22-1 Keith Aloisa, Chemist 03/06/22

CK79978 (1X, 5X)

Initial Calibration Evaluation (CHEM20/20_AIR_0303):
100% of target compounds met criteria.
The following compounds had %RSDs >30%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification #1 (CHEM20/0306_01-20_AIR_0303):
Internal standard areas were within 60 to 140% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 614639 (CK79986)

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

March 10, 2022

SDG I.D.: GCK79978

AIRSIM

QC (Batch Specific):

CK79978(1X, 5X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.

PHOENIX
Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

CHAIN OF CUSTODY RECORD
AIR ANALYSES

800-827-5426
email: greg@phoenixlabs.com

P.O. # | Page 1 of 1

Data Delivery:
☐ Fax #:
☐ Email: mfannon@geiconsultants.com
☐ Phone #: 860 368 5320

Report to: Mackenzie Fannon	**Project Name:** Rockville MGP	**Data Format:** (Circle) Equis Excel Other:	
Customer: GEI	**Invoice to:** Direct Bill To Eversource	**Requested Deliverable:** RCP ASP CAT B	
Address: 455 Winding Brook Dr Glastonbury CT	Drew Blicharz	MCP NJ Deliverables	
	Sampled by: Patrick Blessing	**Quote Number:** ASK Eversource	

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air	Soil Gas	Grab (G) Composite (C)	TO-15	APH
	THIS SECTION FOR LAB USE ONLY												MATRIX			ANALYSES	
79978	SV-CH-1	12869	6.0	-30	-5	5394	21.7	0904	1337	3/4/22	-32	-6		X		X	X

Relinquished by:	Accepted by:	Date:	Time:
Patrick Blessing		3/4/22	1410

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

Signature: Patrick Blessing Date: 3/4/22

State Where Samples Collected: CT

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:
1(6L) 4 hr

Turnaround Time:
1 Day ☐
2 Day ☐
3 Day ☐
4 Day ☐
5 Day ☒

Requested Criteria:
CT: TAC I/C, TAC RES, SVVC I/C, SVVC RES, GWV I/C, GWV CES

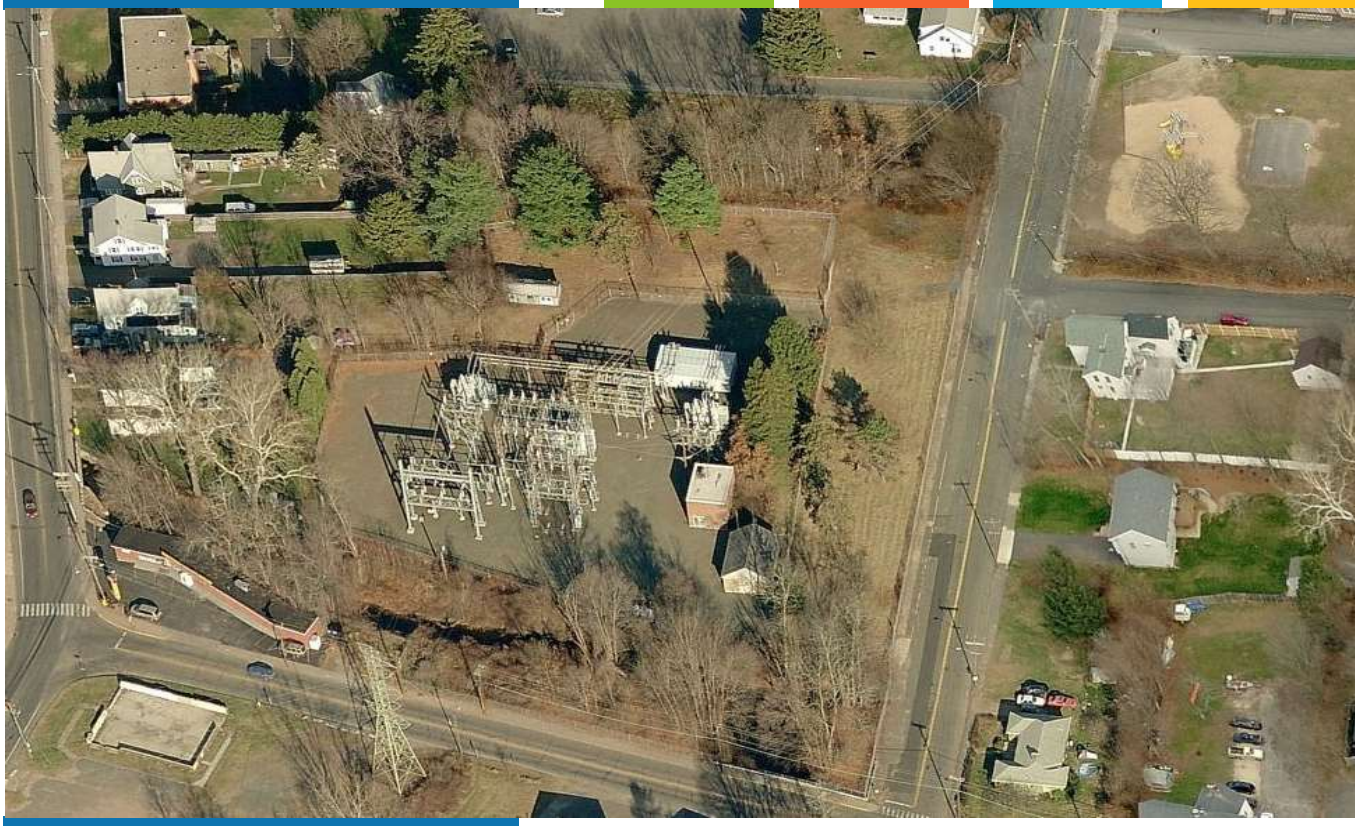
(Please Circle)
MA: Indoor Air: Residential, Ind/Commercial; Soil Gas: Residential, Ind/Commercial
NJ: Indoor Air: Residential, Ind/Commercial; Soil Gas: Residential, Ind/Commercial
NY: Vapor Intrusion
PA: Indoor Air: Residential, Non-residential
VT: Indoor Air: Residential, Industrial; Sub-slab: Residential, Industrial

PEL-115 Rev. 9/2019

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 20
Page 78 of 259

Appendix C

Soil Management Summary Report



Structure 6713 Installation and Lines 1606/1724
Upgrade Project
Rockville 14W Substation
13 Maple Street
Rockville, Connecticut

SOIL MANAGEMENT SUMMARY REPORT

Eversource Energy

EVERSOURCE

December 2022

Tighe&Bond

100% Recyclable

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Tighe&Bond

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Section 1
Introduction

Tighe & Bond was retained by The Connecticut Light & Power Company dba Eversource Energy (Eversource) to provide environmental consulting services in support of construction activities and utility upgrades at the Rockville 14W Substation. Tighe & Bond's consulting services were focused on the handling and management of excess soil and groundwater generated during construction activities and utility upgrades within and adjacent to the Rockville 14W Substation and former Manufactured Gas Plant (MGP), located at 13 Maple Street, in Rockville, Vernon, Connecticut (the "Site"). The Site location is shown on Figure 1.

Impacted soil and fill materials associated with former MGP operations are present beneath much of the substation and consist of coal, ash, clinkers, slag, and bricks ("MGP fill"). MGP fill is generally present from the ground surface to depths of 5 to 7 feet below grade (ftbg) within the inner substation. Lesser amounts of MGP fill are present on the southern portion of the Site, south of the Hockanum River, where Structure 6713 (STR 6713) was installed. Deeper MGP-related impacts to soil and groundwater are also present outside of the inner substation area. Historic groundwater samples collected from monitoring wells MW-12S and MW-12D, located in the vicinity of STR 6713, have contained low concentrations of metals likely associated with background conditions.

1.1 Project Background

Construction activities within the Rockville 14W Substation included excavation and installation of an underground conduit to house an All Dielectric Self-Supporting (ADSS) cable, as shown on Figure 2. Construction activities and upgrades completed outside of the Rockville 14W Substation included installation of new overhead cable support structures terminating at STR 6713, located on the southern portion of the Site, between West Main Street and the Hockanum River. The location of STR 6713 is shown on Figure 2. In addition, new distribution wooden utility poles were installed along Maple Street and West Main Street (Figure 3). This work had been planned in 2021 and was postponed until 2022.

To address the management of excess soil and groundwater during construction activities, Eversource retained Tighe & Bond to complete the following Tasks:

1. Subcontract and oversee a private utility location mark-out and Call Before You Dig (CBYD) notification;
2. Provide in-situ characterization of excess soil and groundwater to be generated and managed as part of the project;
3. Provide waste management support including completion of waste profiling and disposal facility acceptance;
4. Develop a Materials Management Plan (MMP) for soil and groundwater handling and disposal during construction;
5. Provide materials management and construction oversight services as needed during construction;
6. Abandon and replace (as needed) groundwater monitoring wells 12S and 12D; and
7. Prepare a letter report summarizing the results of Tasks 1 through 6.

The results of Tasks 1 through 3 above were summarized in Tighe & Bond's Materials Management Plan (MMP), dated February 2022 and revised March 2022.

Information provided to Tighe & Bond by Eversource indicated that the proposed conduit (ADSS) burial depth would be approximately 3 to 5 ftbg. STR 6713 was proposed to be installed to a depth of 30 ftbg with an approximate diameter of eight feet. Project information and details were provided to Tighe & Bond on the following drawings provided by Eversource:

- Drawing 24601-33003 titled "Rockville 14W Conduit Plan And Details; Conduit Plan, Section & Details, Vernon Connecticut" revised by TRC on December 9, 2021
- Drawing Set titled "Rockville Upgrade Project" dated December 16, 2021 and prepared by AECOM
- Sketch of the proposed utility pole locations provided on July 12, 2022 and revised prior to installation

Tighe & Bond reviewed the construction drawings to estimate the volume of soil to be excavated during the proposed upgrades at the Site. The total volume of soil to be displaced by the installation of the STR 6713 and the installation of the ADSS cable conduits was estimated to be approximately 177 cubic yards or equivalent to approximately 266 tons.

Section 2
Soil Pre-Characterization

2.1 Soil Pre-Characterization Sampling

Soil pre-characterization sampling was conducted in two phases starting with the STR 6713 location and followed by pre-characterization sampling along the proposed conduit route within the Rockville 14W substation. Further details pertaining to the pre-characterization sampling procedures are discussed below in the sections that follow.

After collection, soil samples were placed on ice and maintained under a chain-of-custody protocol. Samples were submitted to Phoenix Environmental Laboratory (Phoenix) of Manchester, Connecticut for chemical testing in accordance with CTDEEP's Reasonable Confidence Protocols (RCP). Phoenix is a State of Connecticut Department of Health (CTDPH)-approved commercial environmental laboratory (PH-0618).

2.1.1 STR 6713 Sampling

Soil quality in the vicinity of the proposed location of STR 6713 was evaluated by Tighe & Bond in January 2022. Soil to be displaced by the proposed installation activities was pre-characterized to identify management options during construction, including proper handling and disposal. The soil sampling location plan is shown on Figure 2.

One soil boring (STR-6713-ENV) was advanced at the proposed location of STR 6713 on January 24, 2022. During boring advancement, Tighe & Bond personnel continuously screened soils for the presence of volatile organic compounds (VOCs) with the photo-ionization detector (PID) and collected soil samples using a combination of soft-dig vacuum excavation methods, hand tools (i.e., hand auger, shovel), and a drill rig equipped with hollow stem augers and a five-foot Macro-Core® sampler. Drilling services were provided by Cisco Geotechnical, LLC (Cisco) of Glastonbury, Connecticut.

The soil boring was advanced to a depth of 26.5 ftbg, where drilling refusal was encountered. The cause of the refusal is assumed to be bedrock based on historical soil borings advanced in the area. A rock core to confirm bedrock was not completed.

In general, the surficial material observed at boring location STR 6713-ENV consisted of brown fine to medium sand with varying amounts of silt and gravel. Brick and coal fragments were observed at the surface to a depth of three ftbg. Odors and PID responses were not observed during soil sampling activities. Groundwater was estimated to be present at approximately 12 ftbg based on soil boring observations, consistent with historic groundwater measurements from monitoring wells MW-12S and MW-12D nearby.

Individual aliquots of soil were collected from five-foot intervals and placed on hold at the laboratory. Soil from the 0-5 foot interval (STR-6713-ENV (0-5 ft)) was submitted for laboratory analysis based on the observation of MGP fill materials as discussed above. Soils from 5 ftbg to 26.5 ftbg were homogenized into a single composite sample, STR-6713-ENV, and submitted for laboratory analysis. Grab soil samples for VOC analysis were collected before homogenization from discrete 2-foot depth intervals for each of the two samples. Soil for the VOC sample in the 0-5 foot interval was collected from 1-3 feet and

soil for the VOC sample from the 5-26.5 foot interval was collected from 10-12 ftbg, just above the apparent water table.

As indicated in Table 1, low concentrations of petroleum hydrocarbons (ETPH), several polycyclic aromatic hydrocarbons (PAHs), a pesticide (DDT), and mercury above the laboratory reporting limits were detected in soil sample STR-6713-ENV (0-5 ft.). Observations made during the soil boring advancement identified the presence of brick and coal fragments in the top three feet as indicated above. The presence of these materials in the soil is the likely source of the detected petroleum, mercury, and PAHs. Bis(2-Ethylhexyl)phthalate was detected above the laboratory reporting limit in soil sample STR-6713-ENV (5-26.5 ft.). The detection of bis(2-Ethylhexyl)phthalate, a common plasticizer, may be attributed to the use of zip-loc bags during sample collection or to cross contamination during laboratory analysis, and is not believed to be indicative of soil conditions.

Metals including arsenic, barium, cadmium, chromium, and lead were detected in both soil samples, at concentrations below the comparable CTDEEP Remediation Standard Regulations (RSR) criteria. As mentioned above, mercury was detected at a low concentration in the soil sample collected from the top five feet and below the comparable RSR criteria. Low concentrations of metals detected in the deeper sample are likely to be associated with background conditions.

VOCs, PCBs, herbicides, cyanide and sulfide were not detected above the laboratory reporting limits in either of the soil samples. Both soil samples passed for ignitability and paint filter test. Laboratory analytical reports for the pre-characterization soil samples are included in Appendix A.

2.1.2 ADSS Cable Conduit Run

Soil sampling activities within the Rockville 14W substation were performed on March 3, 2022. At each boring location, Tighe & Bond collected soil samples using a combination of soft-dig vacuum excavation methods and hand tools (i.e., hand auger, shovel). Soft-dig vacuum excavation services were provided Cisco. During soil boring and sample collection activities, Tighe & Bond personnel continuously screened each soil boring for the presence of VOCs with a PID. The locations of the soil borings are depicted on Figure 2.

Except for SS-3, soil borings were completed to a depth of 5 ftbg along the path of the proposed ADSS cable conduit. SS-3 was only advanced to 4 ftbg due to the presence of large rocks encountered within the boring at 4 ftbg.

In general, the surficial material encountered within the proposed ADSS conduit run consisted of brown fine to medium sand with little gravel and trace amounts of silt. Brick fragments, coal, and/or coal ash were observed in SS-1, SS-3, and SS-5 at depths ranging from 3 to 4 ftbg. Faint petroleum odors and a low PID response were observed at SS-8 from the ground surface to a depth of approximately 5 ftbg. Odors and/or PID responses were not observed at any other locations during soil sampling activities. Groundwater was not encountered at any of the boring locations.

Individual aliquots of soil were collected from each boring and placed on hold at the laboratory. Due to the observed petroleum odors at SS-8, two samples from the SS-8 boring location [SS-8 (0.5-2 ft) and SS-8 (2-4 ft)] were analyzed for ETPH and PCBs to

represent a "worst case" scenario. Aliquots were also homogenized into one composite sample (Rockville COMP). Soil for VOC analysis was collected at a discrete depth interval from two borings inside the substation area [SS-5 (0.2-5 ft) and SS-8 (0.5-2 ft)]. Soil borings located along the planned conduit path were generally spaced approximately 25 feet apart to provide representative coverage of the proposed project area.

As indicated in Table 2, elevated concentrations of ETPH, total arsenic, and several PAHs above the comparable RSR criteria were detected in the composite soil sample. Observations made during the soil boring and sampling program identified the presence of brick fragments, coal fragments, and/or coal ash in several borings as indicated above. The presence of these materials in the soil was determined to be the likely source of the elevated PAHs.

Metals including barium, cadmium, chromium, lead, and mercury were detected in the composite soil sample at concentrations below comparable RSR criteria.

VOCs, PCBs, pesticides, herbicides, sulfur, cyanide and sulfide were not detected above the laboratory reporting limits in the composite sample. The soil sample passed for ignitability and paint filter test.

Concentrations of ETPH were also detected above the RSR criteria in the sample collected from SS-8 at 0.5 to 2 ftbg. ETPH was detected below the RSR criteria in the SS-8 sample collected from 2 to 4 ftbg. PCBs were not detected in either sample collected from SS-8. Laboratory analytical reports for the pre-characterization soil samples are included in Appendix A.

Section 3
Soil & Groundwater Management

The results of the pre-characterization sampling program were evaluated to classify soil and to identify management options prior to construction. Further details pertaining to excess soil management procedures are discussed below in the sections that follow.

3.1 STR 6713

Drilling for the foundation of STR 6713 began on March 21, 2022 and was completed by March 24, 2022. Tighe & Bond personnel present during the drilling observed that soil/fill composition was consistent with observations made during the previous pre-characterization soil sampling discussed in Section 2.1.1. Specifically, the material from the ground surface to approximately five ftbg consisted of brown medium to fine sand with varying amounts of silt and gravel. Anthropogenic fill materials observed included bricks, metal debris, coal pieces and glass pieces. Groundwater was encountered at approximately 10.5 ftbg at STR 6713.

In accordance with the MMP, soil from the top seven feet of the structure location were "live-loaded" onto tri-axel dump trucks and transported under manifest to Clean Earth of Connecticut (Clean Earth) located at 58 North Washington Street in Plainville, Connecticut for off-site disposal. As summarized in Table 3, a total of 29.04 tons of soil were transported to Clean Earth for disposal. Excess soils from below seven ftbg were transported to the northeast corner of the adjacent Rockville 14W substation and spread across the existing grade. Excess soil was placed to a maximum thickness of six inches. The area of the outer substation where excess soil was placed is shown on Figure 2. Copies of the manifests and/or disposal tickets for soils disposed of at Clean Earth are included in Appendix B.

To manage groundwater displaced during the pouring of the concrete structure foundation and as a conservative measure, all groundwater displaced by structure installation was directed to a 21,000-gallon fractionation ("frac") tank provided by Strategic Environmental Services, Inc. (Strategic). On March 29, 2022, a sample of the containerized groundwater was collected from the frac tank and analyzed by Phoenix Laboratories (Manchester, CT) for waste characterization purposes. A summary of the water analytical results is presented in Table 4. A copy of the laboratory analytical report for the wastewater characterization sample is included in Appendix A.

As summarized in Table 5, a total of 6,265 gallons of water were transported to Tradebe T&R Northeast, LLC located at 136 Gracey Avenue in Meriden, Connecticut for disposal. Copies of the manifests and/or disposal tickets for wastewater sent to Tradebe T&R Northeast, LLC are included in Appendix B.

In addition to the liquids discussed above, sediments that had settled out at the bottom of the fractionation tank had to be removed and disposed. As summarized in Table 5, approximately 15.81 tons of sediments were transported off-site by Strategic and disposed of at Tradebe Treatment and Recycling of Stoughton, LLC, located at 441R Canton Street in Stoughton, Massachusetts. Copies of waste manifests for each of the wastes described above are included in Appendix B of this report.

3.2 ADSS Cable Conduit Run

In late April until the end of May 2022, trenching activities were completed to facilitate the installation of the ADSS cable conduit inside the Rockville 14W substation (Figure 2). Although existing concrete duct banks were encountered along the trench path, significant modification of the trench was not necessary. Soils encountered within the conduit trench consisted of the same fill material observed at shallow depths during other investigation activities throughout the inner substation (Appendix C). Fill materials observed generally consisted of reddish-brown and brown fine to medium sand with silt and gravel.

Coincidentally, the ADSS conduit path passed through an area of the inner substation where previous soil sampling had identified a Significant Environmental Hazard (SEH) Condition Notification Threshold Concentration of benzo(a)pyrene (previous soil boring SB-78) in soil less than two ftbg. This portion of the ADSS trench was impacted with fill that was characteristic of former manufactured gas plant (MGP) coal ash residuals. Impacted soil around the SEH area was further delineated by others and this portion of the trench was expanded slightly during construction to remove soil to the limits of the delineation soil sample locations.

In accordance with the MMP, all soil generated during the ADSS trenching was loaded into 20 cubic yard (yrd^3) roll-off containers temporarily staged adjacent to the southern substation fence line. Once a roll-off was filled, an empty roll-off was delivered, and the filled roll-off was transported off-site for disposal. Between May 2 and May 26, 2022, eight roll-off containers of soil were removed from the Site and transported to Clean Earth in Plainville, CT for disposal. Approximately 108.64 tons of soil were disposed of by thermal treatment, as indicated in Table 3. Copies of the waste manifests for soils transported to Clean Earth are included in Appendix B.

3.3 Utility Pole Installation

In 2021, five wooden utility poles were planned to be installed along Maple Street and West Main Street at the Site, however the design changed and only two poles were installed in early August 2022 as shown in Figure 3. Poles were installed to an approximate depth of 6.5 ftbg. Soil displaced by the installation of the utility poles was containerized in 55-gallon drums and temporarily staged within the outer substation fence line for subsequent waste characterization sampling and off-site disposal. In total, four 55-gallon drums of soil were generated.

On August 10, 2022, a composite soil sample was collected from these drums and analyzed by Phoenix Laboratories (Manchester, CT) for waste characterization purposes. A summary of the waste characterization analytical results for soils generated during installation of the pole sets is presented in Table 6. A copy of the laboratory analytical report for the pole set waste characterization soil sample is included in Appendix A. The results were used to profile the soil for proper off-site disposal.

On September 8, 2022, the drums were transported to Red Technologies in Portland, CT for disposal. As indicated in Table 3, 1.8 tons of soil generated during utility pole installation were disposed in this manner. A copy of the waste manifest for soil generated by the installation of the utility poles is included in Appendix B.

Section 4
Monitoring Well Repair & Replacement

Prior to construction, the two existing monitoring wells, MW-12S and MW-12D, located in the vicinity of the proposed STR 6713, were modified at the surface. The steel standpipe was removed, and the PVC riser pipe was cut just below grade. Additional measures were taken to protect these wells; however, the wells were nonetheless damaged. Post construction reconnaissance by Eversource personnel found that monitoring well MW-12D had been partially buried and damaged at the ground surface and only required minor repairs and re-development. Monitoring well MW-12S was irreparably damaged and would require replacement. Under the direction of Tighe & Bond, Cisco mobilized to the Site on November 23, 2022 to abandon monitoring well MW-12S, install replacement monitoring well MW-12SR, develop MW-12SR, and repair and re-develop monitoring well MW-12D.

4.1 MW-12S Abandonment

As discussed above, existing monitoring well MW-12S was damaged during construction of STR 6713 and was beyond repair. Attempts were made to pull the well from the ground but only the riser was able to be unthreaded from the well screen. In order to prevent the potential introduction of contaminants to the subsurface at this location, MW-12S was abandoned in-place by Cisco on November 23, 2022 by grouting the well to the ground surface.

4.2 MW-12SR Installation

Following completion of well abandonment activities, replacement well MW-12SR was installed as shown on Figure 4. MW-12SR was installed using hollow stem auger (HSA) drilling techniques to a depth of 16 ftbg. During well installation, soil cuttings were logged for physical characteristics, evidence of visual contamination and/or odors and screened with a PID by Tighe & Bond field personnel. No obvious signs of contamination such as staining or odors were noted in the soil cuttings and the cuttings were spread at the surface. As indicated on the well completion log included in Appendix D, MW-12SR was constructed using a 10-foot length of 2-inch diameter, 0.010 slot schedule 40 polyvinyl chloride (PVC) screen installed from approximately 6-16 ftbg. MW-12SR was finished using 2-inch diameter, schedule 40 PVC riser to approximately 3 feet above grade and completed at grade with a steel standpipe cemented in place.

4.3 Monitoring Well Repair and Development

Upon completion, the newly installed MW-12SR was developed to remove sediments and establish a connection to the aquifer. Soil surrounding the existing MW-12D riser pipe was dug out and a fresh cut was made below the damaged section of pipe. A coupling was attached to connect another section of PVC pipe to complete the new riser above grade. The well was then redeveloped. Both wells were developed using clean, dedicated polyethylene tubing, and decontaminated foot valves and surge blocks. A submersible pump was also used to remove suspended fines from the screened interval. Development of MW-12SR resulted in the removal of approximately 10 gallons of water. Approximately 20 gallons of water was removed from MW-12D during its redevelopment. Groundwater

removed from both wells was containerized in a 55-gallon drum which is temporarily stored adjacent to the wells within the gated and locked fence line. No NAPL, sheens, or odors were noted in the monitoring well discharges from either well during development.

Tighe&Bond

FIGURES

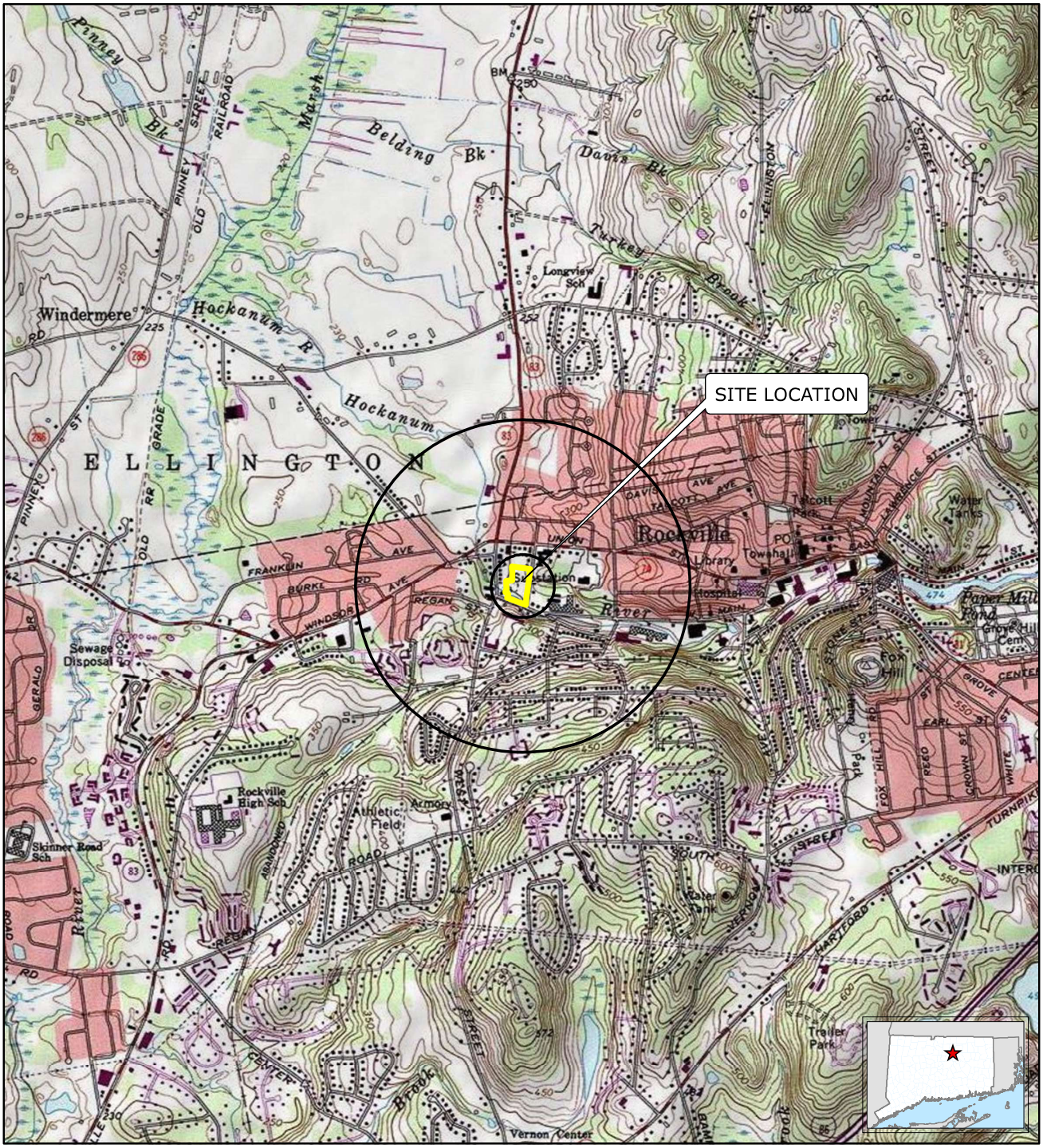


FIGURE 1
SITE LOCATION MAP

The Connecticut Light and Power Co.
dba Eversource Energy (Eversource)
Rockville 14W
13 Maple Street & West Main Street
Rockville, Vernon, Connecticut
January 2022

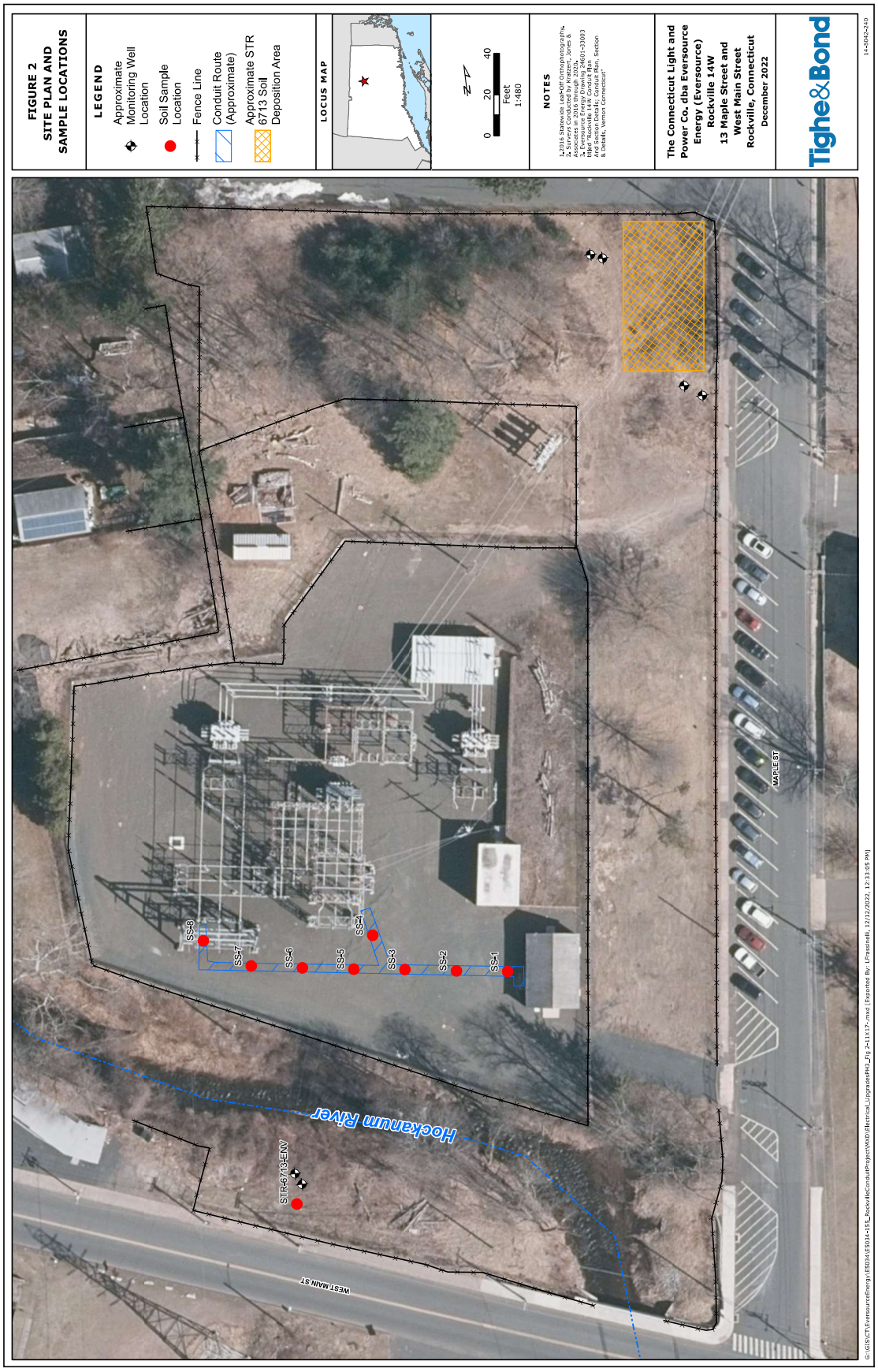
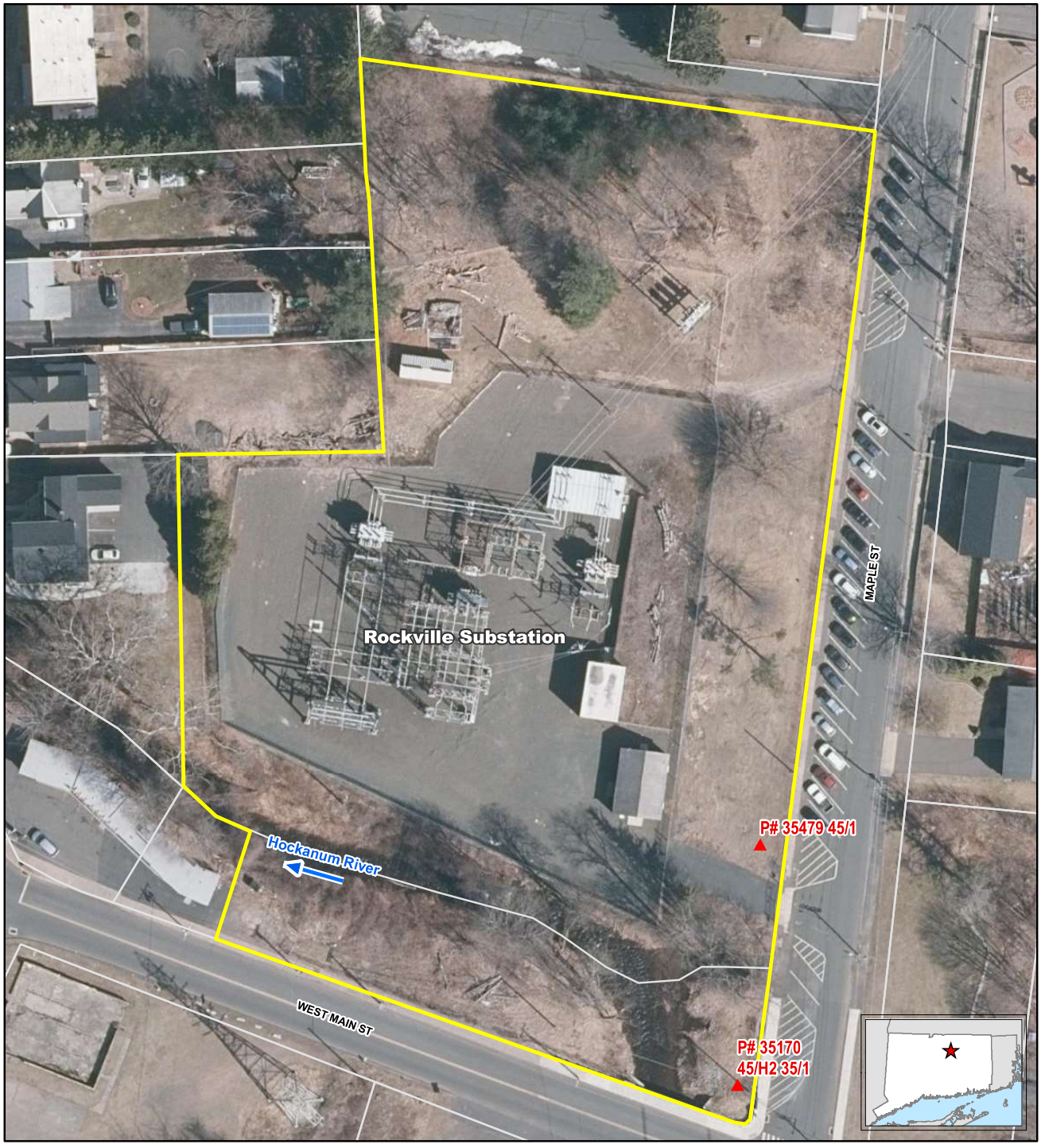


FIGURE 2
SITE PLAN AND
SAMPLE LOCATIONS
LEGEND
Approximate Monitoring Well Location
Soil Sample Location
Fence Line
Conduit Route (Approximate)
Approximate STR 6713 Soil Deposition Area
LOCUS MAP
0
20
40
Feet
1:480
NOTES
1. 2016 Statewide Leaf-Off Orthophotography.
2. Eversource Conduit Routing Plan, Jones & Associates in 2016 through 2024.
3. Eversource Energy Drawing 24691-33003 titled "Rockville 14W Conduit Plan, Profile and Section Details; Conduit Plan, Section & Details, Vernon Connecticut"
The Connecticut Light and Power Co. dba Eversource Energy (Eversource)
Rockville 14W
13 Maple Street and West Main Street
Rockville, Connecticut
December 2022
Tighe&Bond
14-5941-340
SS-8
SS-7
SS-6
SS-5
SS-4
SS-3
SS-2
SS-1
STR-6713-ENV
Hockanum River
WEST MAIN ST
MAPLE ST



LEGEND

▲ Pole Set Location

Subject Property

Parcel Boundary

Tighe&Bond

Based on 2019 Statewide Leaf-Off Orthophotography, Parcel Data Courtesy of CTECO.

1:840

0 35 70

Feet

N

FIGURE 3
ROCKVILLE 14W SUBSTATION
POLE SET LOCATIONS

Eversource Former Rockville MGP Site
13 Maple Street
Rockville, Vernon, CT

December 2022

V:\Projects\E\E5042\240 - 13 Maple Street VernonCT\MXD\FormerRockvilleMGPSite.mxd [Exported By: LFrassinelli, 12/9/2022, 12:32:02 PM]

E-5042

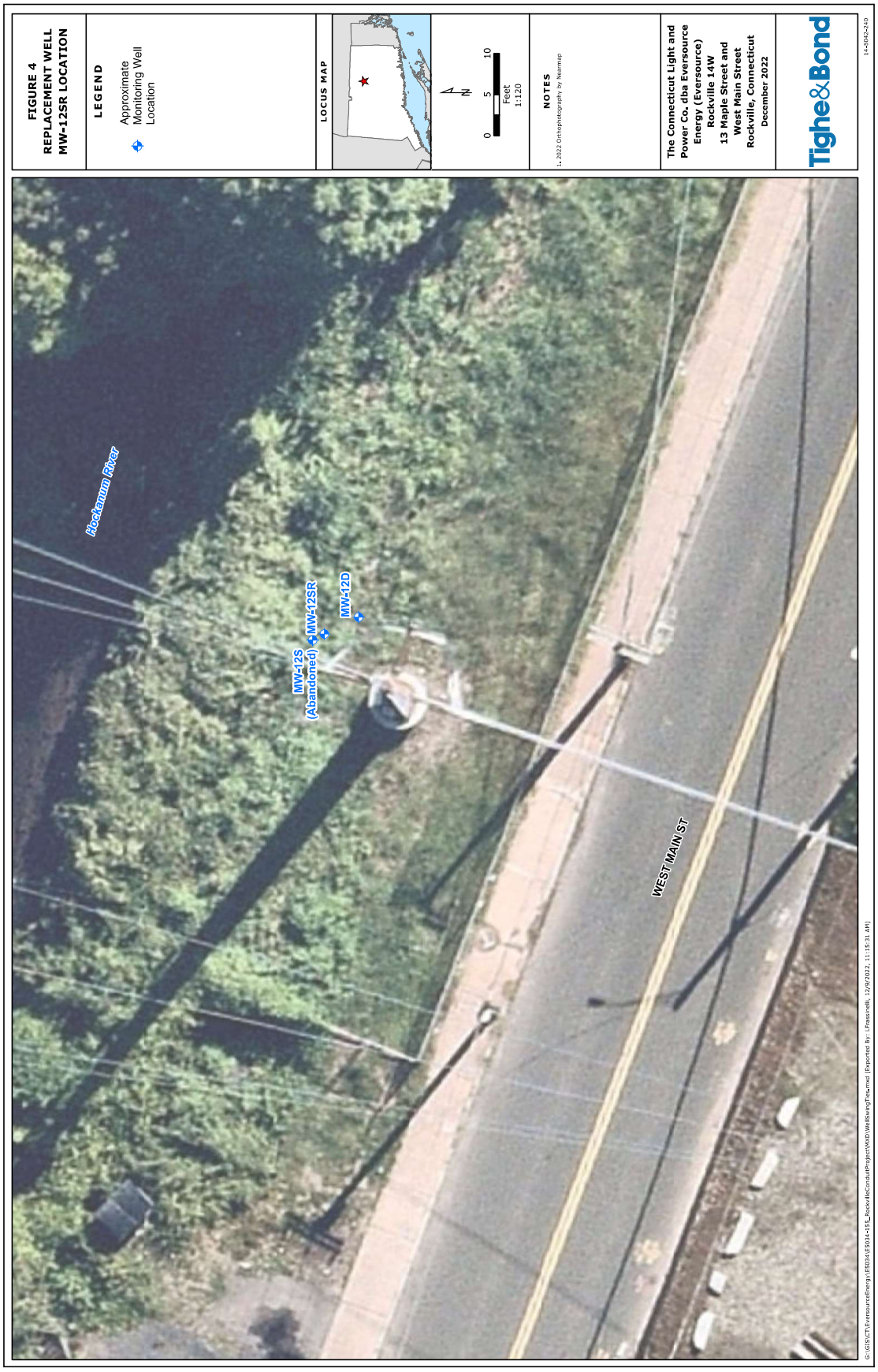


FIGURE 4
REPLACEMENT WELL
MW-12SR LOCATION
LEGEND
Approximate
Monitoring Well
Location
LOCUS MAP
N
0
5
10
Feet
1:120
NOTES
1. 2022 Orthophotography by Nearmap
The Connecticut Light and
Power Co. dba Eversource
Energy (Eversource)
Rockville 14W
13 Maple Street and
West Main Street
Rockville, Connecticut
December 2022
Tighe&Bond
14-5041-340
Hockanum River
MW-12S
(Abandoned)
MW-12SR
MW-12D
WEST MAIN ST

Tighe&Bond

TABLES

TABLE 1
SUMMARY OF PRE-CHARACTERIZATION SOIL SAMPLE ANALYTICAL RESULTS - STR 6713
Rockville 14W Substation
13 Maple Street
Rockville, CT

Tighe&Bond

Sample Name	CT DEEP RSRs			RCRA Hazardous Waste Criteria	RCRA 20X Toxicity Characteristic	STR-6713-ENV	STR-6713-ENV	STR-6713-ENV	STR-6713-ENV
Sample Depth						0 - 5 ft	1 - 3 ft	5 - 26.5 ft	10 - 12 ft
Sample Date						1/24/2022	1/24/2022	1/24/2022	1/24/2022
Lab Sample ID	RES DEC	I/C DEC	GB PMC**			CK21636	CK21636	CK21635	CK21635
Hydrocarbon (mg/Kg)									
Fuel Oil #2 / Diesel Fuel	NE	NE	NE	NE	NE	<56	-	<57	-
Fuel Oil #4	NE	NE	NE	NE	NE	<56	-	<57	-
Fuel Oil #6	NE	NE	NE	NE	NE	<56	-	<57	-
Kerosene	NE	NE	NE	NE	NE	<56	-	<57	-
Motor Oil	NE	NE	NE	NE	NE	<56	-	<57	-
Total TPH	NE	NE	NE	NE	NE	94	-	<57	-
Unidentified	NE	NE	NE	NE	NE	<56	-	<57	-
VOCs (mg/Kg)	Varies	Varies	Varies	NE	Varies	-	BRL	-	BRL
SVOCs (mg/Kg)									
Acenaphthylene	1,000	2,500	84	NE	NE	0.29	-	<0.270	-
Benzo(a)anthracene	1	7.8	1	NE	NE	0.85	-	<0.270	-
Benzo(a)pyrene	1	1	1	NE	NE	0.97	-	<0.270	-
Benzo(b)fluoranthene	1	7.8	1	NE	NE	0.86	-	<0.270	-
Benzo(g,h,i)perylene	*8.4*	*78*	*1*	NE	NE	0.63	-	<0.270	-
Benzo(k)fluoranthene	8.4	78	1	NE	NE	0.86	-	<0.270	-
bis(2-Ethylhexyl)phthalate	44	410	11	NE	NE	<0.260	-	0.36	-
Chrysene	*84*	*780*	*1*	NE	NE	1.0	-	<0.270	-
Fluoranthene	1,000	2,500	56	NE	NE	1.7	-	<0.270	-
Indeno(1,2,3-cd)pyrene	*1*	*7.8*	*1*	NE	NE	0.75	-	<0.270	-
Phenanthrene	1,000	2,500	40	NE	NE	1.2	-	<0.270	-
Pyrene	1,000	2,500	40	NE	NE	1.6	-	<0.270	-
Pesticides (mg/Kg)									
DDT, 4,4-	NE	NE	NE	NE	NE	0.0019	-	<0.0015	-
DDT (Total)	1.8	17	0.02	NE	NE	0.0019	-	<0.0015	-
Herbicides (mg/Kg)	Varies	Varies	Varies	NE	Varies	BRL	-	BRL	-
PCBs (mg/Kg)									
PCBs (Total)	1	10	NA	NE	NE	<0.380	-	<0.380	-
Metals (mg/Kg)									
Arsenic	10	10	NA	NE	100	4.63	-	2.26	-
Barium	4,700	140,000	NA	NE	2,000	56.3	-	77	-
Cadmium	34	1,000	NA	NE	20	1.82	-	1.5	-
Chromium (Total)	NE	NE	NA	NE	100	30.2	-	34.5	-
Lead	400	1,000	NA	NE	100	94	-	13.7	-
Mercury	20	610	NA	NE	4	0.21	-	<0.03	-
Selenium	340	10,000	NA	NE	20	<1.4	-	<1.6	-
Silver	340	10,000	NA	NE	100	<0.34	-	<0.39	-
Waste Characterization									
Conductivity (umhos/cm)	NE	NE	NE	NE	NE	20	-	135	-
Corrosivity	NE	NE	NE	NE	NE	Negative	-	Negative	-
Cyanide (Reactive) (mg/Kg)	NE	NE	NE	NE	NE	<6	-	<6	-
Flash Point (Deg F)	NE	NE	NE	>140	NE	>200	-	>200	-
Ignitability (Deg F)	NE	NE	NE	>140	NE	Passed	-	Passed	-
Paint Filter Test	NE	NE	NE	NE	NE	Passed	-	Passed	-
pH	NE	NE	NE	≤2 or ≥12	NE	6.9	-	7.69	-
Reactivity	NE	NE	NE	NE	NE	Negative	-	Negative	-
Sulfide (Reactive) (mg/Kg)	NE	NE	NE	NE	NE	<20	-	<20	-

CTDEEP RSRs- Connecticut Department of Energy and Environmental Protection Remediation Standard Regulations (Febuary 16, 2021) and Technical Support Document: Recommended Numeric Criteria for Common Additional Polluting Substances and Certain Alternative Criteria (September 20, 2018).
RES DEC - Residential Direct Exposure Criteria
I/C DEC - Industrial/Commercial Direct Exposure Criteria
GB PMC - Pollutant Mobility Criteria for groundwater class GB
RCRA - Resource Revocery and Conservation Act
mg/Kg - milligrams per kilogram
CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons
VOCs - Volatile Organic Compounds
SVOCs - Semi-Volatile Organic Compounds
< - Not detected above laboratory limits
NE - CTDEEP RSR Criteria not established
NA - Not Applicable
** - GB PMC values are established for leachable metals and PCBs using TCLP or SPLP analysis.
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
- Sample not analyzed

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
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TABLE 2
SUMMARY OF PRE-CHARACTERIZATION SOIL SAMPLE ANALYTICAL RESULTS - ADSS
Rockville 14W Substation
13 Maple Street
Rockville, CT

Tighe&Bond

Sample Name	CTDEEP RSR Criteria				RCRA Hazardous Waste Criteria	RCRA 20X Toxicity Characteristic	ROCKVILLE COMP	SS-5	SS-8	SS-8
Sample Depth							--	0.5-2 ft	0.5-2 ft	2-4 ft
Sample Date							3/3/2022	3/3/2022	3/3/2022	3/3/2022
Lab Sample ID							CK78890	CK78882	CK78888	CK78889
Lab Report ID	RES DEC	I/C DEC	GA PMC	GB PMC			GCK78874	GCK78874	GCK78874	GCK78874
CTETPH 8015D	500	2,500	500	2,500	NE	NE	910	-	910	470
VOCs 8260C	Varies	Varies	Varies	Varies	NE	Varies	BRL	BRL	BRL	-
SVOCs 8270D										
Acenaphthylene	1,000	2,500	8.4	84	NE	NE	4.5	-	-	-
Anthracene	1,000	2,500	40	400	NE	NE	2.1	-	-	-
Benzo(a)anthracene	1	7.8	1	1	NE	NE	6.0	-	-	-
Benzo(a)pyrene	1	1	1	1	NE	NE	**6.3**	-	-	-
Benzo(b)fluoranthene	1	7.8	1	1	NE	NE	6.2	-	-	-
Benzo(g,h,i)perylene	*8.4*	*78*	*1*	*1*	NE	NE	*6.4*	-	-	-
Benzo(k)fluoranthene	8.4	78	1	1	NE	NE	4.8	-	-	-
Chrysene	*84*	*780*	*1*	*1*	NE	NE	*7.3*	-	-	-
Dibenz(a,h)anthracene	*1*	*1*	*1*	*1*	NE	NE	***1.7***	-	-	-
Fluoranthene	1,000	2,500	5.6	56	NE	NE	5.6	-	-	-
Indeno(1,2,3-cd)pyrene	*1*	*7.8*	*1*	*1*	NE	NE	6.2	-	-	-
Methylnaphthalene, 2-	*270*	*1,000*	*0.56*	*5.6*	NE	NE	0.35	-	-	-
Naphthalene	1,000	2,500	5.6	56	NE	NE	0.57	-	-	-
Phenanthrene	1,000	2,500	4	40	NE	NE	2.4	-	-	-
Pyrene	1,000	2,500	4	40	NE	NE	10	-	-	-
Pesticides 8081B	Varies	Varies	Varies	Varies	NE	Varies	BRL	-	-	-
Herbicides 8151A	Varies	Varies	Varies	Varies	NE	Varies	BRL	-	-	-
PCBs 8082A										
PCBs	1	10	NA	NA	NE	NE	<0.380	-	<0.390	<0.390
Metals 6010D										
Arsenic	10	10	NA	NA	NE	100	**11.4**	-	-	-
Barium	4,700	140,000	NA	NA	NE	2,000	87.3	-	-	-
Cadmium	34	1,000	NA	NA	NE	20	1.03	-	-	-
Chromium	NE	NE	NA	NA	NE	100	13.9	-	-	-
Lead	400	1,000	NA	NA	NE	100	71.9	-	-	-
Mercury	20	610	NA	NA	NE	4	0.41	-	-	-
Selenium	340	10,000	NA	NA	NE	20	<1.5	-	-	-
Silver	340	10,000	NA	NA	NE	100	<0.37	-	-	-
Waste Characterization										
Paint Filter Test	NE	NE	NE	NE	NE	NE	Passed	-	-	-
Conductivity	NE	NE	NE	NE	NE	NE	54	-	-	-
Ignitability	NE	NE	NE	NE	NE	NE	Passed	-	-	-
Flash Point	NE	NE	NE	NE	>140	NE	>200	-	-	-
Corrosivity	NE	NE	NE	NE	>140	NE	Negative	-	-	-
pH	NE	NE	NE	NE	NE	NE	6.94	-	-	-
Reactivity	NE	NE	NE	NE	≤2 or ≥12	NE	Negative	-	-	-
Cyanide	NE	NE	NE	NE	NE	NE	<5	-	-	-
Sulfide	NE	NE	NE	NE	NE	NE	<20	-	-	-

CTDEEP RSRs- Connecticut Department of Energy and Environmental Protection Remediation Standard Regulations
and CTDEEP Additional Polluting Substances shown in italics
CT ETPH- Connecticut Department of Public Health Extractable Total Petroleum Hydrocarbons
NE- Not established / NA - Not Applicable
< xx indicates compound was not reported above laboratory limits.
"-"- Sample not analyzed
Only parameters reported above reporting limits are summarized above
Results presented in milligrams per kilogram
PAHs- Polycyclic Aromatic Hydrocarbons
PCBs- Polychlorinated Biphenyls
VOCs- Volatile Organic Compounds
RES DEC-Residential Direct Exposure Criteria
I/C DEC- Industrial/Commercial Direct Exposure Criteria
GA PMC- Pollutant Mobility Criteria in a GA groundwater area
GB PMC- Pollutant Mobility Criteria in a GB groundwater area
Boxed values indicate exceedances of RES DEC
Bold values indicate exceedances of I/C DEC
Gray shaded values indicate exceedance of PMC

TABLE 3
SOIL DISPOSAL SUMMARY
Rockville 14W Substation
13 Maple Street
Rockville, Connecticut

Date	Transporter	Ticket #	Manifest #	Vehicle ID	Receiving Facility	Weight (tons)
Structure 6713						
3/21/2022	SRS National, LLC	2761723	142794	64212A	Clean Earth of Connecticut	25.64
3/21/2022	SRS National, LLC	2765782	142797	64213A	Clean Earth of Connecticut	3.4
					Sub-Total	**29.04**
ADSS Cable Conduit Run						
4/27/2022	SRS National, LLC	2792860	163974	60906A	Clean Earth of Connecticut	14.78
5/2/2022	SRS National, LLC	2797669	1884502	60906A	Clean Earth of Connecticut	17.18
5/5/2022	SRS National, LLC	2800934	1884507	60906A	Clean Earth of Connecticut	14.49
5/11/2022	SRS National, LLC	2805212	1884506	60906A	Clean Earth of Connecticut	12.77
5/13/2022	SRS National, LLC	2805214	1884503	60906A	Clean Earth of Connecticut	14.12
5/17/2022	SRS National, LLC	2808808	1884504	60906A	Clean Earth of Connecticut	16.54
5/24/2022	SRS National, LLC	2812733	1884505	60906A	Clean Earth of Connecticut	11.87
5/26/2022	SRS National, LLC	2820160	1884509	60906A	Clean Earth of Connecticut	6.89
					Sub-Total	**108.64**
Pole Sets						
9/8/2022	Strategic Environmental Services, Inc.	22-0057-01	22-0057-01	NA	Red Technologies, LLC	1.8
					Sub-Total	**1.8**
					TOTAL	**139.48**

TABLE 4

SUMMARY OF WASTEWATER CHARACTERIZATION SAMPLE ANALYTICAL RESULTS - FRAC TANK

Rockville 14W Substation

13 Maple Street

Rockville, CT

Sample Name	**CTDEEP RSRs**				**FRAC TANK**
Sample Date					3/29/2022
Lab Sample ID	GWPC	SWPC	RES VC	I/C VC	CK96105
Lab Report ID					GCK96105
CT ETPH (ug/L)	250	*250*	*250*	*250*	<67
Metals (ug/L)					
Arsenic	50	4	NE	NE	<4
Barium	1,000	*2,200*	NE	NE	125
Cadmium	5	6	NE	NE	<1
Chromium (Total)	50	NE	NE	NE	40
Lead	15	13	NE	NE	10
Mercury	2	0.4	NE	NE	<0.2
Selenium	50	50	NE	NE	<10
Silver	36	12	NE	NE	<1
pH	NE	NE	NE	NE	10.74
PCBs (ug/L)					
PCBs (Total)	0.5	0.5	NE	NE	<0.26
VOCs (ug/L)					
Acetone	700	*10,000*	50,000	50,000	43

CTDEEP RSRs- Connecticut Department of Energy and Environmental Protection Remediation Standard Regulations (February 16, 2021) and *CTDEEP Additional Polluting Substances (September 20, 2018)*

SWPC- Surface Water Protection Criteria
GWPC- Groundwater Protection Criteria
RES VC- Residential Groundwater Volatilization Criteria
I/C VC- Industrial/Commercial Groundwater Volatilization Criteria
NE- Not established
< xx indicates compound was not reported above laboratory limits.
Only parameters reported above reporting limits are summarized above
Results presented in micrograms per liter (µg/L)
CT ETPH- Connecticut Department of Public Health Extractable Total Petroleum Hydrocarbons
PCBs- Polychlorinated Biphenyls
VOCs- Volatile Organic Compounds

TABLE 5
SEDIMENT AND GROUNDWATER DISPOSAL SUMMARY - STR 6713
Rockville 14W Substation
13 Maple Street
Rockville, Connecticut

Date	Transporter	Manifest # / Waste Tracking #	Receiving Facility	Weight (tons)	Gallons
Structure 6713					
5/25/2022	Tradebe Transportation, LLC	3203225	Tradebe T&R Northeast, LLC	[redacted]	3,800
5/25/2022	Tradebe Transportation, LLC	3203227	Tradebe T&R Northeast, LLC		2,465
6/3/2022	Boston Green Fuel Company	1000369183-02	Tradebe Treatment and Recycling of Stouton, LLC	2	[redacted]
6/6/2022	Strategic Environmental Services, Inc.	1000376372-01	Tradebe Treatment and Recycling of Bridgeport, LLC	0.6	
6/6/2022	Graf Brothers	1000369183-02	Tradebe Treatment and Recycling of Stouton, LLC	13.21	
			TOTAL	**15.81**	**6,265**

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
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TABLE 6
SUMMARY OF WASTE CHARACTERIZATION SOIL SAMPLE ANALYTICAL RESULTS - POLE SETS
Rockville 14W Substation
13 Maple Street
Rockville, CT

Tighe&Bond

Sample Name	CTDEEP RSR Criteria						RSS-WC 1
Sample Date							8/10/2022
Lab Sample ID	RES	I/C	GA	GB	GWPC	GWPC	CM01691
Lab Report ID	DEC	DECE	PMC	PMC		x10	GCM01691
VOCs 8260C (mg/Kg)	Varies	Varies	Varies	Varies	NA	NA	BRL
TCLP VOCs 8260C (ug/L)							
Benzene	NA	NA	NA	NA	1	10	<100
SVOCs 8270D (mg/Kg)							
Acenaphthene	*1,000*	*2,500*	*8.4*	*84*	NA	NA	0.53
Acenaphthylene	1,000	2,500	8.4	84	NA	NA	4.4
Anthracene	1,000	2,500	40	400	NA	NA	6.1
Benzo(a)anthracene	1	7.8	1	1	NA	NA	**62**
Benzo(a)pyrene	1	1	1	1	NA	NA	**69**
Benzo(b)fluoranthene	1	7.8	1	1	NA	NA	**55**
Benzo(g,h,i)perylene	*8.4*	*78*	*1*	*1*	NA	NA	*30*
Benzo(k)fluoranthene	8.4	78	1	1	NA	NA	49
Carbazole	*31*	*290*	*0.2*	*1*	NA	NA	*2.5*
Chrysene	*84*	*780*	*1*	*1*	NA	NA	*53*
Dibenz(a,h)anthracene	*1*	*1*	*1*	*1*	NA	NA	***13***
Dibenzofuran	*68*	*1,000*	*0.2*	*1.4*	NA	NA	*1.2*
Fluoranthene	1,000	2,500	5.6	56	NA	NA	68
Indeno(1,2,3-cd)pyrene	*1*	*7.8*	*1*	*1*	NA	NA	***39***
Methylnaphthalene, 2-	*270*	*1,000*	*0.56*	*5.6*	NA	NA	*0.74*
Methylphenol, 3&4 (Cresol, m&p-	*NE*	*NE*	*NE*	*NE*	NA	NA	0.55
Naphthalene	1,000	2,500	5.6	56	NA	NA	2.1
Phenanthrene	1,000	2,500	4	40	NA	NA	19
Phenol	1,000	2,500	80	800	NA	NA	0.58
Pyrene	1,000	2,500	4	40	NA	NA	65
CTETPH 8015D (mg/Kg)	500	2,500	500	2,500	NA	NA	950
Metals 6010D (mg/Kg)							
Arsenic	10	10	NA	NA	NA	NA	2.92
Barium	4,700	140,000	NA	NA	NA	NA	64.2
Cadmium	34	1,000	NA	NA	NA	NA	<0.40
Chromium (Total)	NE	NE	NA	NA	NA	NA	17.9
Lead	400	1,000	NA	NA	NA	NA	46.8
Mercury (7471B)	20	610	NA	NA	NA	NA	0.16
Selenium	340	10,000	NA	NA	NA	NA	<1.6
Silver	340	10,000	NA	NA	NA	NA	<0.40
TCLP Metals 6010C (mg/L)							
Lead	NA	NA	0.015	0.15	NA	NA	0.015
PCBs 8082A (mg/Kg)							
PCBs (Total)	1	10	NA	NA	NA	NA	ND
Pesticides 8081B (mg/Kg)							
DDD, 4,4-	NE	NE	NE	NE	NA	NA	<0.0015
DDE, 4,4-	NE	NE	NE	NE	NA	NA	0.0069
DDT, 4,4-	NE	NE	NE	NE	NA	NA	<0.003
DDT (Total)	*1.8*	*17*	*0.003*	*0.02*	NA	NA	*0.0069*
Herbicides 8151A (mg/Kg)							
D, 2,4-	680	20,000	1.4	14	NA	NA	<0.28
Dalapon	NE	NE	NE	NE	NA	NA	<0.14
DB, 2,4-	NE	NE	NE	NE	NA	NA	<2.8
Dicamba	*500*	*1,000*	*4.2*	*42*	NA	NA	<0.14
Dichloroprop	*240*	*1,000*	*0.5*	*5*	NA	NA	<0.28
Dinoseb	NE	NE	NE	NE	NA	NA	<0.28
T, 2,4,5-	NE	NE	NE	NE	NA	NA	<0.14
TP, 2,4,5- (Silvex)	NE	NE	NE	NE	NA	NA	<0.14
General Chemistry							
Cyanide (Total)	1,400	41,000	NA	NA	NA	NA	11.5
Paint Filter Test	NA	NA	NA	NA	NA	NA	Passed
Percent Solid	NA	NA	NA	NA	NA	NA	88
Flash Point	NA	NA	NA	NA	NA	NA	<200
Ignitability	NA	NA	NA	NA	NA	NA	Passed

CTDEEP RSRs - Connecticut Department of Energy and Environmental Protection Remediation Standard Regulations (February 16, 2021) and *CTDEEP Additional Polluting Substances (September 20, 2018)*
CT ETPH - Connecticut Department of Public Health Extractable Total Petroleum Hydrocarbons
NE - Not established/NA - Not Applicable
<xx indicates compound was not reported above laboratory limits.
"-" - Sample not analyzed
Only VOCs, SVOCs, Pesticides, Herbicides, and PCBs reported above reporting limits are summarized above
Results presented in milligrams per kilogram (mg/kg)
TCLP VOC results presented in micrograms per liter (ug/L)
TCLP metal results presented in milligrams per liter (mg/L)
PCBs - Polychlorinated Biphenyls
SVOCs - Semi-Volatile Organic Compounds
TCLP - Toxicity Characteristic Leaching Procedure
VOCs - Volatile Organic Compounds
RES DEC - Residential Direct Exposure Criteria
I/C DEC - Industrial/Commercial Direct Exposure Criteria
GA PMC - Pollutant Mobility Criteria in a GA groundwater area
GB PMC- Pollutant Mobility Criteria in a GB groundwater area
GWPC - Groundwater Protection Criteria
Boxed values indicate exceedances of RES DEC
Bold values indicate exceedances of I/C DEC
Gray shaded values indicate exceedance of GA/GB PMC

J:\E\E5042 Eversource #CW2266810\240 - Rockville Conduit\Reports\Tables\Table 6 - Summary of Waste Characterization Soil Sample Analytical Results - Pole Sets.xlsx

Tighe&Bond

APPENDIX A

PHOENIX
Environmental Laboratories, Inc.

Wednesday, January 26, 2022

Attn: Ben Caswell
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: **EVERSOURCE-ROCKVILLE LINES 1606/1724**
SDG ID: **GCK21635**
Sample ID#s: CK21635 - CK21636

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

January 26, 2022

SDG I.D.: GCK21635

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724

Client Id	Lab Id	Matrix
STR-6713-ENV	CK21635	SOIL
STR-6713-ENV (0-5`)	CK21636	SOIL

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 26, 2022

FOR: Attn: Ben Caswell
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		01/24/22	10:40
Location Code:	TIGHE-EVER	Received by:	LB	01/24/22	11:07
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	10948703				

Laboratory Data

SDG ID: GCK21635
Phoenix ID: CK21635

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	01/25/22	EK	SW6010D
Arsenic	2.26	0.78	mg/Kg	1	01/25/22	EK	SW6010D
Barium	77.0	0.39	mg/Kg	1	01/25/22	EK	SW6010D
Cadmium	1.50	0.39	mg/Kg	1	01/25/22	EK	SW6010D
Chromium	34.5	0.39	mg/Kg	1	01/25/22	EK	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	01/25/22	AP	SW7471B
Lead	13.7	0.39	mg/Kg	1	01/25/22	EK	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	01/25/22	EK	SW6010D
Percent Solid	86		%		01/24/22	JS	SW846-%Solid
Conductivity - Soil Matrix	135	5	umhos/cm	1	01/25/22	MM	SW9050A
Corrosivity	Negative		Pos/Neg	1	01/24/22	DT	SW846-Corr
Flash Point	>200	200	Degree F	1	01/25/22	G	SW1010B
Ignitability	Passed	140	degree F	1	01/25/22	G	SW846-Ignit
pH at 25C - Soil	7.69	1.00	pH Units	1	01/24/22 21:20	DT	SW846 9045D
Reactivity Cyanide	< 6	6	mg/Kg	1	01/25/22	DK	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/25/22	DK/GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/25/22	DK/GD	SW846-React
Soil Extraction for PCB	Completed				01/24/22	O/U	SW3545A
Soil Extraction for Pesticide	Completed				01/24/22	O/U	SW3545A
Mercury Digestion	Completed				01/25/22	AB/AB	SW7471B
Extraction of ETPH	Completed				01/24/22	R/L	SW3546
Soil Extraction for Herbicide	Completed				01/24/22	M/D	SW3546
Soil Extraction for SVOA	Completed				01/24/22	R/L	SW3546
Paint Filter Test	Passed		PASS/FAIL		01/24/22	O	SW9095B
Total Metals Digest	Completed				01/24/22	M/AG	SW3050B

Ver 1

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV
Phoenix I.D.: CK21635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chlorinated Herbicides							
2,4,5-T	ND	150	ug/Kg	10	01/25/22	JRB	SW8151A
2,4,5-TP (Silvex)	ND	150	ug/Kg	10	01/25/22	JRB	SW8151A
2,4-D	ND	290	ug/Kg	10	01/25/22	JRB	SW8151A
2,4-DB	ND	2900	ug/Kg	10	01/25/22	JRB	SW8151A
Dalapon	ND	150	ug/Kg	10	01/25/22	JRB	SW8151A
Dicamba	ND	150	ug/Kg	10	01/25/22	JRB	SW8151A
Dichloroprop	ND	290	ug/Kg	10	01/25/22	JRB	SW8151A
Dinoseb	ND	290	ug/Kg	10	01/25/22	JRB	SW8151A
QA/QC Surrogates							
% DCAA	83		%	10	01/25/22	JRB	30 - 150 %
% DCAA (Confirmation)	76		%	10	01/25/22	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1221	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1232	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1242	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1248	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1254	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1260	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1262	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1268	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
QA/QC Surrogates							
% DCBP	100		%	10	01/25/22	SC	30 - 150 %
% DCBP (Confirmation)	85		%	10	01/25/22	SC	30 - 150 %
% TCMX	78		%	10	01/25/22	SC	30 - 150 %
% TCMX (Confirmation)	74		%	10	01/25/22	SC	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Alachlor	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	01/25/22	AW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	01/25/22	AW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
Endosulfan sulfate	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
Endrin	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
Endrin aldehyde	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
Endrin ketone	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Heptachlor	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B
Heptachlor epoxide	ND	7.6	ug/Kg	2	01/25/22	AW	SW8081B

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV
Phoenix I.D.: CK21635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methoxychlor	ND	38	ug/Kg	2	01/25/22	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	01/25/22	AW	SW8081B
QA/QC Surrogates							
% DCBP	69		%	2	01/25/22	AW	30 - 150 %
% DCBP (Confirmation)	59		%	2	01/25/22	AW	30 - 150 %
% TCMX	62		%	2	01/25/22	AW	30 - 150 %
% TCMX (Confirmation)	61		%	2	01/25/22	AW	30 - 150 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	57	mg/kg	1	01/25/22	JRB	SW8015D DRO
Fuel Oil #4	ND	57	mg/kg	1	01/25/22	JRB	SW8015D DRO
Fuel Oil #6	ND	57	mg/kg	1	01/25/22	JRB	SW8015D DRO
Kerosene	ND	57	mg/kg	1	01/25/22	JRB	SW8015D DRO
Motor Oil	ND	57	mg/kg	1	01/25/22	JRB	SW8015D DRO
Total TPH	ND	57	mg/kg	1	01/25/22	JRB	SW8015D DRO
Unidentified	ND	57	mg/kg	1	01/25/22	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	77		%	1	01/25/22	JRB	50 - 150 %
% Terphenyl (surr)	88		%	1	01/25/22	JRB	50 - 150 %
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,1-Dichloroethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,1-Dichloroethene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dibromoethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dichloroethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dichloropropane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
2-Hexanone	ND	28	ug/kg	1	01/25/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/kg	1	01/25/22	JLI	SW8260C
Acetone	ND	56	ug/kg	1	01/25/22	JLI	SW8260C
Benzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Bromochloromethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Bromodichloromethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Bromoform	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Bromomethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Carbon Disulfide	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Carbon tetrachloride	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Chlorobenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Chloroethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Chloroform	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Chloromethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV
Phoenix I.D.: CK21635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
cis-1,3-Dichloropropene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Cyclohexane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Dibromochloromethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Dichlorodifluoromethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Ethylbenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Isopropylbenzene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
m&p-Xylene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Methyl ethyl ketone	ND	34	ug/kg	1	01/25/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	01/25/22	JLI	SW8260C
Methylacetate	ND	4.5	ug/kg	1	01/25/22	JLI	SW8260C
Methylcyclohexane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Methylene chloride	ND	28	ug/kg	1	01/25/22	JLI	SW8260C
o-Xylene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Styrene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Tetrachloroethene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Toluene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Total Xylenes	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Trichloroethene	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Trichlorofluoromethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
Vinyl chloride	ND	5.6	ug/kg	1	01/25/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	01/25/22	JLI	70 - 130 %
% Bromofluorobenzene	101		%	1	01/25/22	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	01/25/22	JLI	70 - 130 %
% Toluene-d8	97		%	1	01/25/22	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	85	ug/kg	1	01/25/22	JLI	SW8260C
Semivolatiles							
1,1-Biphenyl	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	01/25/22	WB	SW8270D
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	01/25/22	WB	SW8270D

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV
Phoenix I.D.: CK21635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	01/25/22	WB	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
4-Nitrophenol	ND	1100	ug/Kg	1	01/25/22	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Atrazine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Benzaldehyde	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-ethylhexyl)phthalate	360	270	ug/Kg	1	01/25/22	WB	SW8270D
Caprolactam	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Chrysene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	01/25/22	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Di-n-butylphthalate	ND	760	ug/Kg	1	01/25/22	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Fluoranthene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	01/25/22	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	01/25/22	WB	SW8270D
Phenanthrene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV

Phoenix I.D.: CK21635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenol	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
Pyrene	ND	270	ug/Kg	1	01/25/22	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	01/25/22	WB	30 - 130 %
% 2-Fluorobiphenyl	74		%	1	01/25/22	WB	30 - 130 %
% 2-Fluorophenol	67		%	1	01/25/22	WB	30 - 130 %
% Nitrobenzene-d5	77		%	1	01/25/22	WB	30 - 130 %
% Phenol-d5	74		%	1	01/25/22	WB	30 - 130 %
% Terphenyl-d14	75		%	1	01/25/22	WB	30 - 130 %
SVOA Library Search Top 15	Completed				01/25/22	MR	

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Paint Filter Test:
Pass = no free liquids were detected. Fail = free liquids were detected.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 26, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 26, 2022

FOR: Attn: Ben Caswell
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		01/24/22	8:30
Location Code:	TIGHE-EVER	Received by:	LB	01/24/22	11:07
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	10948703				

Laboratory Data

SDG ID: GCK21635
Phoenix ID: CK21636

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV (0-5`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	01/25/22	EK	SW6010D
Arsenic	4.63	0.68	mg/Kg	1	01/25/22	EK	SW6010D
Barium	56.3	0.34	mg/Kg	1	01/25/22	EK	SW6010D
Cadmium	1.82	0.34	mg/Kg	1	01/25/22	EK	SW6010D
Chromium	30.2	0.34	mg/Kg	1	01/25/22	EK	SW6010D
Mercury	0.21	0.03	mg/Kg	2	01/25/22	AP	SW7471B
Lead	94.0	0.34	mg/Kg	1	01/25/22	EK	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	01/25/22	EK	SW6010D
Percent Solid	87		%		01/24/22	JS	SW846-%Solid
Conductivity - Soil Matrix	20	5	umhos/cm	1	01/25/22	MM	SW9050A
Corrosivity	Negative		Pos/Neg	1	01/24/22	DT	SW846-Corr
Flash Point	>200	200	Degree F	1	01/25/22	G	SW1010B
Ignitability	Passed	140	degree F	1	01/25/22	G	SW846-Ignit
pH at 25C - Soil	6.90	1.00	pH Units	1	01/24/22 21:20	DT	SW846 9045D
Reactivity Cyanide	< 6	6	mg/Kg	1	01/25/22	DK	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/25/22	DK/GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/25/22	DK/GD	SW846-React
Soil Extraction for PCB	Completed				01/24/22	O/U	SW3545A
Soil Extraction for Pesticide	Completed				01/24/22	O/U	SW3545A
Mercury Digestion	Completed				01/25/22	AB/AB	SW7471B
Extraction of ETPH	Completed				01/24/22	R/L	SW3546
Soil Extraction for Herbicide	Completed				01/24/22	M/D	SW3546
Soil Extraction for SVOA	Completed				01/24/22	R/L	SW3546
Paint Filter Test	Passed		PASS/FAIL		01/24/22	O	SW9095B
Total Metals Digest	Completed				01/24/22	M/AG	SW3050B

Ver 1

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV (0-5`)
Phoenix I.D.: CK21636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chlorinated Herbicides							
2,4,5-T	ND	140	ug/Kg	10	01/25/22	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/25/22	JRB	SW8151A
2,4-D	ND	290	ug/Kg	10	01/25/22	JRB	SW8151A
2,4-DB	ND	2900	ug/Kg	10	01/25/22	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/25/22	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/25/22	JRB	SW8151A
Dichloroprop	ND	290	ug/Kg	10	01/25/22	JRB	SW8151A
Dinoseb	ND	290	ug/Kg	10	01/25/22	JRB	SW8151A
QA/QC Surrogates							
% DCAA	84		%	10	01/25/22	JRB	30 - 150 %
% DCAA (Confirmation)	81		%	10	01/25/22	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1221	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1232	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1242	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1248	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1254	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1260	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1262	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
PCB-1268	ND	380	ug/Kg	10	01/25/22	SC	SW8082A
QA/QC Surrogates							
% DCBP	79		%	10	01/25/22	SC	30 - 150 %
% DCBP (Confirmation)	104		%	10	01/25/22	SC	30 - 150 %
% TCMX	76		%	10	01/25/22	SC	30 - 150 %
% TCMX (Confirmation)	72		%	10	01/25/22	SC	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
4,4' -DDT	1.9	1.5	ug/Kg	2	01/25/22	AW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Alachlor	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	01/25/22	AW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	01/25/22	AW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
Endosulfan sulfate	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
Endrin	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	01/25/22	AW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	01/25/22	AW	SW8081B

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV (0-5`)
Phoenix I.D.: CK21636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methoxychlor	ND	38	ug/Kg	2	01/25/22	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	01/25/22	AW	SW8081B
QA/QC Surrogates							
% DCBP	59		%	2	01/25/22	AW	30 - 150 %
% DCBP (Confirmation)	51		%	2	01/25/22	AW	30 - 150 %
% TCMX	57		%	2	01/25/22	AW	30 - 150 %
% TCMX (Confirmation)	55		%	2	01/25/22	AW	30 - 150 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	56	mg/kg	1	01/25/22	JRB	SW8015D DRO
Fuel Oil #4	ND	56	mg/kg	1	01/25/22	JRB	SW8015D DRO
Fuel Oil #6	ND	56	mg/kg	1	01/25/22	JRB	SW8015D DRO
Kerosene	ND	56	mg/kg	1	01/25/22	JRB	SW8015D DRO
Motor Oil	ND	56	mg/kg	1	01/25/22	JRB	SW8015D DRO
Total TPH	94	56	mg/kg	1	01/25/22	JRB	SW8015D DRO
Unidentified	**	56	mg/kg	1	01/25/22	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	112		%	1	01/25/22	JRB	50 - 150 %
% Terphenyl (surr)	115		%	1	01/25/22	JRB	50 - 150 %
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	290	ug/kg	50	01/25/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	290	ug/kg	50	01/25/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dibromoethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	290	ug/kg	50	01/25/22	JLI	SW8260C
1,2-Dichloroethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	290	ug/kg	50	01/25/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	290	ug/kg	50	01/25/22	JLI	SW8260C
2-Hexanone	ND	27	ug/kg	1	01/25/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/kg	1	01/25/22	JLI	SW8260C
Acetone	ND	53	ug/kg	1	01/25/22	JLI	SW8260C
Benzene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Bromodichloromethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Bromoform	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Bromomethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Chloroethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Chloroform	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Chloromethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV (0-5`)
Phoenix I.D.: CK21636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
cis-1,3-Dichloropropene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Cyclohexane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Dibromochloromethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Isopropylbenzene	ND	290	ug/kg	50	01/25/22	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Methyl ethyl ketone	ND	32	ug/kg	1	01/25/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	01/25/22	JLI	SW8260C
Methylacetate	ND	4.3	ug/kg	1	01/25/22	JLI	SW8260C
Methylcyclohexane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Methylene chloride	ND	27	ug/kg	1	01/25/22	JLI	SW8260C
o-Xylene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Styrene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Toluene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Total Xylenes	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Trichloroethene	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/kg	1	01/25/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	105		%	1	01/25/22	JLI	70 - 130 %
% Bromofluorobenzene	82		%	1	01/25/22	JLI	70 - 130 %
% Dibromofluoromethane	102		%	1	01/25/22	JLI	70 - 130 %
% Toluene-d8	92		%	1	01/25/22	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	96		%	50	01/25/22	JLI	70 - 130 %
% Bromofluorobenzene (50x)	101		%	50	01/25/22	JLI	70 - 130 %
% Dibromofluoromethane (50x)	98		%	50	01/25/22	JLI	70 - 130 %
% Toluene-d8 (50x)	98		%	50	01/25/22	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	80	ug/kg	1	01/25/22	JLI	SW8260C
Semivolatiles							
1,1-Biphenyl	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	01/25/22	WB	SW8270D
2,3,4,6-tetrachlorophenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: STR-6713-ENV (0-5`)
Phoenix I.D.: CK21636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	01/25/22	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	01/25/22	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	01/25/22	WB	SW8270D
4-Nitrophenol	ND	1100	ug/Kg	1	01/25/22	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Acenaphthylene	290	260	ug/Kg	1	01/25/22	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Atrazine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Benz(a)anthracene	850	260	ug/Kg	1	01/25/22	WB	SW8270D
Benzaldehyde	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(a)pyrene	970	260	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(b)fluoranthene	860	260	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(ghi)perylene	630	260	ug/Kg	1	01/25/22	WB	SW8270D
Benzo(k)fluoranthene	860	260	ug/Kg	1	01/25/22	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Caprolactam	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Chrysene	1000	260	ug/Kg	1	01/25/22	WB	SW8270D
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	01/25/22	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Di-n-butylphthalate	ND	750	ug/Kg	1	01/25/22	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Fluoranthene	1700	260	ug/Kg	1	01/25/22	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Indeno(1,2,3-cd)pyrene	750	260	ug/Kg	1	01/25/22	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724 Phoenix I.D.: CK21636
Client ID: STR-6713-ENV (0-5`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	01/25/22	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	01/25/22	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	01/25/22	WB	SW8270D
Phenanthrene	1200	260	ug/Kg	1	01/25/22	WB	SW8270D
Phenol	ND	260	ug/Kg	1	01/25/22	WB	SW8270D
Pyrene	1600	260	ug/Kg	1	01/25/22	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	82		%	1	01/25/22	WB	30 - 130 %
% 2-Fluorobiphenyl	75		%	1	01/25/22	WB	30 - 130 %
% 2-Fluorophenol	65		%	1	01/25/22	WB	30 - 130 %
% Nitrobenzene-d5	77		%	1	01/25/22	WB	30 - 130 %
% Phenol-d5	71		%	1	01/25/22	WB	30 - 130 %
% Terphenyl-d14	74		%	1	01/25/22	WB	30 - 130 %
SVOA Library Search Top 15	Completed				01/25/22	MR	

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724 Phoenix I.D.: CK21636
Client ID: STR-6713-ENV (0-5`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Paint Filter Test:
Pass = no free liquids were detected. Fail = free liquids were detected.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C22 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

Volatile Comment:
There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
January 26, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: STR-6713-ENV

Lab Name: Phoenix Environmental Labs Client: TIGHE-EVER

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCK2163

Matrix:(soil/water) SOIL Lab Sample ID: CK21635

Sample wt/vol: 15.32 (g/mL) g Lab File ID: 0124_16.D

Level: (low/med) Low Date Received: 01/24/22

% Moisture: not dec. 14 decanted:(Y/N) NA Date Extracted: 01/25/22

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 1/25/2022

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.616	2400	JNA
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.341	1300	JNC
074685-29-3	9-Eicosene, (E)-	7.363	1100	JN
001599-67-3	1-Docosene	8.809	1200	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product.
Aldol condensation products are produced during the extraction process.
C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: STR-6713-ENV (0-5`)

Lab Name: Phoenix Environmental Labs Client: TIGHE-EVER

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCK2163

Matrix:(soil/water) SOIL Lab Sample ID: CK21636

Sample wt/vol: 15.31 (g/mL) g Lab File ID: 0124_24.D

Level: (low/med) Low Date Received: 01/24/22

% Moisture: not dec. 13 decanted:(Y/N) NA Date Extracted: 01/25/22

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 1/25/2022

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 7 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.616	2300	JNA
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.341	1400	JNC
000112-88-9	1-Octadecene	7.363	1000	JN
002531-84-2	Phenanthrene, 2-methyl-	7.992	330	JN
000610-48-0	Anthracene, 1-methyl-	8.098	700	JN
001599-67-3	1-Docosene	8.815	1200	JN
000205-82-3	Benzo[j]fluoranthene	13.468	720	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product.
Aldol condensation products are produced during the extraction process.
C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

January 26, 2022

QA/QC Data

SDG I.D.: GCK21635

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 609426 (mg/kg), QC Sample No: CK21750 2X (CK21635, CK21636)														
Mercury - Soil	BRL	0.02	0.09	0.10	10.5	121	119	1.7	57.9	57.2	1.2	70 - 130	30	m
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 609346 (mg/kg), QC Sample No: CK20929 (CK21635, CK21636)														
ICP Metals - Soil														
Arsenic	BRL	0.67	1.19	1.41	NC	88.3	91.9	4.0	102			75 - 125	35	
Barium	BRL	0.33	26.8	28.8	7.20	92.0	102	10.3	111			75 - 125	35	
Cadmium	BRL	0.33	0.83	0.85	NC	91.2	95.5	4.6	104			75 - 125	35	
Chromium	BRL	0.33	12.0	13.6	12.5	95.0	99.3	4.4	101			75 - 125	35	
Lead	BRL	0.33	6.16	7.45	19.0	97.7	99.6	1.9	105			75 - 125	35	
Selenium	BRL	1.3	<1.4	<1.4	NC	90.4	93.2	3.1	99.9			75 - 125	35	
Silver	BRL	0.33	<0.36	<0.36	NC	85.5	90.7	5.9	100			75 - 125	35	
Comment:														
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.														

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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QA/QC Report

January 26, 2022

QA/QC Data

SDG I.D.: GCK21635

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 609440 (mg/Kg), QC Sample No: CK20805 5X (CK21635, CK21636)													
Reactivity Cyanide	BRL	5	<5	<5.1	NC	101						85 - 115	30
Reactivity Sulfide	BRL	20	<20	<20	NC	91.8						80 - 120	30
QA/QC Batch 609554 (umhos/cm), QC Sample No: CK20239 (CK21635, CK21636)													
Conductivity - Soil Matrix	BRL	5	1660	1660	0							75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 609417 (PH), QC Sample No: CK21607 (CK21635, CK21636)													
pH at 25C - Soil			2.97	2.96	NC	101						85 - 115	20
QA/QC Batch 609496 (Degree F), QC Sample No: CK21751 (CK21635, CK21636)													
Flash Point			>200	>200	NC	100						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													

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QA/QC Report

January 26, 2022

QA/QC Data

SDG I.D.: GCK21635

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 609354 (mg/Kg), QC Sample No: CK21636 (CK21635, CK21636)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	126	122	3.2	112	99	12.3	60 - 120	30	I
% COD (surr)	98	%	110	112	1.8	130	110	16.7	50 - 150	30	
% Terphenyl (surr)	106	%	113	109	3.6	116	106	9.0	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 609365 (ug/Kg), QC Sample No: CK21755 10X (CK21635, CK21636)											
Chlorinated Herbicides - Soil											
2,4,5-T	ND	130	71	60	16.8	62	56	10.2	40 - 140	30	
2,4,5-TP (Silvex)	ND	130	64	62	3.2	69	67	2.9	40 - 140	30	
2,4-D	ND	250	65	73	11.6	62	57	8.4	40 - 140	30	
2,4-DB	ND	2500	51	50	2.0	53	46	14.1	40 - 140	30	
Dalapon	ND	130	56	54	3.6	53	54	1.9	40 - 140	30	
Dicamba	ND	130	66	67	1.5	71	70	1.4	40 - 140	30	
Dichloroprop	ND	130	69	74	7.0	70	66	5.9	40 - 140	30	
Dinoseb	ND	130	68	63	7.6	76	65	15.6	40 - 140	30	
% DCAA (Surrogate Rec)	86	%	87	86	1.2	87	85	2.3	30 - 150	30	
% DCAA (Surrogate Rec) (Confirm	79	%	84	82	2.4	87	81	7.1	30 - 150	30	
Comment:											
Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.											
QA/QC Batch 609348 (ug/Kg), QC Sample No: CK21635 2X (CK21635, CK21636)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	84	68	21.1	67	74	9.9	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	89	74	18.4	75	110	37.8	40 - 140	30	r
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	80	%	98	76	25.3	77	76	1.3	30 - 150	30	
% DCBP (Surrogate Rec) (Confirm	77	%	96	76	23.3	78	78	0.0	30 - 150	30	
% TCMX (Surrogate Rec)	72	%	85	67	23.7	65	67	3.0	30 - 150	30	
% TCMX (Surrogate Rec) (Confirm	69	%	82	64	24.7	63	65	3.1	30 - 150	30	
QA/QC Batch 609349 (ug/Kg), QC Sample No: CK21635 2X (CK21635, CK21636)											
Pesticides - Soil											
4,4' -DDD	ND	1.7	68	58	15.9	69	70	1.4	40 - 140	30	
4,4' -DDE	ND	1.7	69	61	12.3	71	72	1.4	40 - 140	30	

QA/QC Data

SDG I.D.: GCK21635

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4,4' -DDT	ND	1.7	66	56	16.4	66	66	0.0	40 - 140	30	
a-BHC	ND	1.0	66	58	12.9	67	69	2.9	40 - 140	30	
Alachlor	ND	3.3	NA	NA	NC	NA	NA	NC	40 - 140	30	
Aldrin	ND	1.0	70	61	13.7	71	70	1.4	40 - 140	30	
b-BHC	ND	1.0	66	57	14.6	67	67	0.0	40 - 140	30	
Chlordane	ND	33	70	59	17.1	69	69	0.0	40 - 140	30	
d-BHC	ND	3.3	37	32	14.5	37	37	0.0	40 - 140	30	I
Dieldrin	ND	1.0	69	59	15.6	69	68	1.5	40 - 140	30	
Endosulfan I	ND	3.3	68	59	14.2	68	69	1.5	40 - 140	30	
Endosulfan II	ND	3.3	68	57	17.6	66	66	0.0	40 - 140	30	
Endosulfan sulfate	ND	3.3	54	45	18.2	53	53	0.0	40 - 140	30	
Endrin	ND	3.3	70	59	17.1	70	69	1.4	40 - 140	30	
Endrin aldehyde	ND	3.3	57	51	11.1	57	57	0.0	40 - 140	30	
Endrin ketone	ND	3.3	59	51	14.5	58	58	0.0	40 - 140	30	
g-BHC	ND	1.0	70	60	15.4	70	70	0.0	40 - 140	30	
Heptachlor	ND	3.3	72	63	13.3	73	73	0.0	40 - 140	30	
Heptachlor epoxide	ND	3.3	70	60	15.4	70	70	0.0	40 - 140	30	
Methoxychlor	ND	3.3	69	58	17.3	69	68	1.5	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	63	%	53	47	12.0	54	53	1.9	30 - 150	30	
% DCBP (Confirmation)	57	%	55	47	15.7	61	62	1.6	30 - 150	30	
% TCMX	61	%	65	58	11.4	65	67	3.0	30 - 150	30	
% TCMX (Confirmation)	52	%	64	56	13.3	70	74	5.6	30 - 150	30	
QA/QC Batch 609352 (ug/kg), QC Sample No: CK21508 (CK21635, CK21636)											
Semivolatiles - Soil											
1,1-Biphenyl	ND	230	74	72	2.7	55	66	18.2	40 - 140	30	
1,2,4,5-Tetrachlorobenzene	ND	230	72	74	2.7	54	65	18.5	40 - 140	30	
2,3,4,6-tetrachlorophenol	ND	230	78	80	2.5	61	70	13.7	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	84	85	1.2	68	77	12.4	40 - 140	30	
2,4,6-Trichlorophenol	ND	130	84	82	2.4	62	76	20.3	30 - 130	30	
2,4-Dichlorophenol	ND	130	84	85	1.2	64	75	15.8	30 - 130	30	
2,4-Dimethylphenol	ND	230	86	88	2.3	68	78	13.7	30 - 130	30	
2,4-Dinitrophenol	ND	230	12	<10	NC	40	49	20.2	30 - 130	30	I
2,4-Dinitrotoluene	ND	130	91	95	4.3	71	82	14.4	30 - 130	30	
2,6-Dinitrotoluene	ND	130	88	88	0.0	68	78	13.7	40 - 140	30	
2-Chloronaphthalene	ND	230	74	72	2.7	55	66	18.2	40 - 140	30	
2-Chlorophenol	ND	230	87	86	1.2	61	74	19.3	30 - 130	30	
2-Methylnaphthalene	ND	230	74	75	1.3	55	65	16.7	40 - 140	30	
2-Methylphenol (o-cresol)	ND	230	93	85	9.0	62	77	21.6	40 - 140	30	
2-Nitroaniline	ND	330	135	133	1.5	105	116	10.0	40 - 140	30	
2-Nitrophenol	ND	230	85	87	2.3	63	77	20.0	40 - 140	30	
3&4-Methylphenol (m&p-cresol)	ND	230	95	94	1.1	70	80	13.3	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	91	94	3.2	66	74	11.4	40 - 140	30	
3-Nitroaniline	ND	330	104	106	1.9	75	83	10.1	40 - 140	30	
4,6-Dinitro-2-methylphenol	ND	230	18	12	40.0	46	56	19.6	30 - 130	30	I,r
4-Bromophenyl phenyl ether	ND	230	76	76	0.0	58	69	17.3	40 - 140	30	
4-Chloro-3-methylphenol	ND	230	95	97	2.1	75	84	11.3	30 - 130	30	
4-Chloroaniline	ND	230	87	89	2.3	62	67	7.8	40 - 140	30	
4-Chlorophenyl phenyl ether	ND	230	80	81	1.2	61	72	16.5	40 - 140	30	
4-Nitroaniline	ND	230	94	92	2.2	73	84	14.0	40 - 140	30	
4-Nitrophenol	ND	230	98	95	3.1	76	91	18.0	30 - 130	30	
Acenaphthene	ND	230	82	81	1.2	62	73	16.3	30 - 130	30	

QA/QC Data

SDG I.D.: GCK21635

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Acenaphthylene	ND	130	69	68	1.5	53	61	14.0	40 - 140	30	
Acetophenone	ND	230	76	75	1.3	55	65	16.7	40 - 140	30	
Anthracene	ND	230	78	78	0.0	61	71	15.2	40 - 140	30	
Atrazine	ND	130	60	62	3.3	48	56	15.4	40 - 140	30	
Benz(a)anthracene	ND	230	79	80	1.3	61	70	13.7	40 - 140	30	
Benzaldehyde	ND	230	47	50	6.2	49	35	33.3	40 - 140	30	m,r
Benzo(a)pyrene	ND	130	78	78	0.0	61	70	13.7	40 - 140	30	
Benzo(b)fluoranthene	ND	160	81	80	1.2	62	72	14.9	40 - 140	30	
Benzo(ghi)perylene	ND	230	80	80	0.0	62	72	14.9	40 - 140	30	
Benzo(k)fluoranthene	ND	230	74	75	1.3	61	66	7.9	40 - 140	30	
Benzyl butyl phthalate	ND	230	88	87	1.1	66	78	16.7	40 - 140	30	
Bis(2-chloroethoxy)methane	ND	230	75	76	1.3	56	68	19.4	40 - 140	30	
Bis(2-chloroethyl)ether	ND	130	71	68	4.3	49	60	20.2	40 - 140	30	
Bis(2-chloroisopropyl)ether	ND	230	67	65	3.0	48	57	17.1	40 - 140	30	
Bis(2-ethylhexyl)phthalate	ND	230	85	84	1.2	66	76	14.1	40 - 140	30	
Caprolactam	ND	230	88	90	2.2	68	76	11.1	40 - 140	30	
Carbazole	ND	230	80	79	1.3	64	72	11.8	40 - 140	30	
Chrysene	ND	230	80	82	2.5	63	73	14.7	40 - 140	30	
Dibenz(a,h)anthracene	ND	130	82	82	0.0	63	72	13.3	40 - 140	30	
Dibenzofuran	ND	230	77	77	0.0	59	68	14.2	40 - 140	30	
Diethyl phthalate	ND	230	80	83	3.7	64	72	11.8	40 - 140	30	
Dimethylphthalate	ND	230	79	80	1.3	61	71	15.2	40 - 140	30	
Di-n-butylphthalate	ND	670	80	82	2.5	64	74	14.5	40 - 140	30	
Di-n-octylphthalate	ND	230	94	95	1.1	71	84	16.8	40 - 140	30	
Fluoranthene	ND	230	78	79	1.3	63	71	11.9	40 - 140	30	
Fluorene	ND	230	79	80	1.3	62	71	13.5	40 - 140	30	
Hexachlorobenzene	ND	130	77	76	1.3	61	71	15.2	40 - 140	30	
Hexachlorobutadiene	ND	230	64	65	1.6	48	60	22.2	40 - 140	30	
Hexachlorocyclopentadiene	ND	230	39	39	0.0	26	36	32.3	40 - 140	30	l,m,r
Hexachloroethane	ND	130	67	63	6.2	45	56	21.8	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	230	88	88	0.0	65	77	16.9	40 - 140	30	
Isophorone	ND	130	69	71	2.9	52	62	17.5	40 - 140	30	
Naphthalene	ND	230	71	70	1.4	52	64	20.7	40 - 140	30	
Nitrobenzene	ND	130	83	82	1.2	59	70	17.1	40 - 140	30	
N-Nitrosodimethylamine	ND	230	70	65	7.4	44	59	29.1	40 - 140	30	
N-Nitrosodi-n-propylamine	ND	130	82	79	3.7	58	70	18.8	40 - 140	30	
N-Nitrosodiphenylamine	ND	130	81	81	0.0	63	72	13.3	40 - 140	30	
Pentachlorophenol	ND	230	50	40	22.2	42	48	13.3	30 - 130	30	
Phenanthrene	ND	130	77	77	0.0	62	70	12.1	40 - 140	30	
Phenol	ND	230	92	89	3.3	64	76	17.1	30 - 130	30	
Pyrene	ND	230	75	76	1.3	63	69	9.1	30 - 130	30	
% 2,4,6-Tribromophenol	70	%	79	76	3.9	63	71	11.9	30 - 130	30	
% 2-Fluorobiphenyl	69	%	72	70	2.8	53	64	18.8	30 - 130	30	
% 2-Fluorophenol	63	%	79	77	2.6	53	65	20.3	30 - 130	30	
% Nitrobenzene-d5	71	%	79	78	1.3	56	68	19.4	30 - 130	30	
% Phenol-d5	70	%	87	84	3.5	61	72	16.5	30 - 130	30	
% Terphenyl-d14	69	%	78	80	2.5	62	69	10.7	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Data

SDG I.D.: GCK21635

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 609617H (ug/kg), QC Sample No: CK22253 50X (CK21636 (50X))											
Volatiles - Soil (High Level)											
1,2,3-Trichlorobenzene	ND	250	115	100	14.0	104	109	4.7	70 - 130	30	
1,2,4-Trichlorobenzene	ND	250	117	103	12.7	104	110	5.6	70 - 130	30	
1,2-Dichlorobenzene	ND	250	108	99	8.7	103	108	4.7	70 - 130	30	
1,3-Dichlorobenzene	ND	250	109	96	12.7	101	105	3.9	70 - 130	30	
1,4-Dichlorobenzene	ND	250	111	100	10.4	103	109	5.7	70 - 130	30	
Isopropylbenzene	ND	250	107	98	8.8	103	107	3.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	96	%	98	99	1.0	100	99	1.0	70 - 130	30	
% Bromofluorobenzene	100	%	101	101	0.0	101	100	1.0	70 - 130	30	
% Dibromofluoromethane	100	%	103	101	2.0	101	102	1.0	70 - 130	30	
% Toluene-d8	98	%	104	103	1.0	102	104	1.9	70 - 130	30	
Comment:											
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.											
QA/QC Batch 609478 (ug/kg), QC Sample No: CK22254 (CK21635, CK21636)											
Volatiles - Soil (Low Level)											
1,1,1-Trichloroethane	ND	5.0	105	108	2.8	104	109	4.7	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	103	103	0.0	96	100	4.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	103	102	1.0	94	98	4.2	70 - 130	30	
1,1-Dichloroethane	ND	5.0	107	108	0.9	94	98	4.2	70 - 130	30	
1,1-Dichloroethene	ND	5.0	108	110	1.8	104	111	6.5	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	108	109	0.9	82	87	5.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	109	109	0.0	82	87	5.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	106	106	0.0	87	97	10.9	70 - 130	30	
1,2-Dibromoethane	ND	5.0	104	103	1.0	95	100	5.1	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	106	107	0.9	97	101	4.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	102	100	2.0	96	100	4.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	99	98	1.0	94	98	4.2	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	105	104	1.0	94	97	3.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	108	108	0.0	95	99	4.1	70 - 130	30	
1,4-dioxane	ND	100	107	105	1.9	101	110	8.5	70 - 130	30	
2-Hexanone	ND	25	87	83	4.7	72	74	2.7	70 - 130	30	
4-Methyl-2-pentanone	ND	25	94	93	1.1	79	86	8.5	70 - 130	30	
Acetone	ND	10	82	79	3.7	69	73	5.6	70 - 130	30	m
Benzene	ND	1.0	99	101	2.0	97	101	4.0	70 - 130	30	
Bromochloromethane	ND	5.0	104	101	2.9	97	99	2.0	70 - 130	30	
Bromodichloromethane	ND	5.0	105	105	0.0	99	104	4.9	70 - 130	30	
Bromoform	ND	5.0	105	103	1.9	89	97	8.6	70 - 130	30	
Bromomethane	ND	5.0	112	111	0.9	108	110	1.8	70 - 130	30	
Carbon Disulfide	ND	5.0	105	107	1.9	97	102	5.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	105	108	2.8	102	107	4.8	70 - 130	30	
Chlorobenzene	ND	5.0	104	105	1.0	100	104	3.9	70 - 130	30	
Chloroethane	ND	5.0	108	110	1.8	102	108	5.7	70 - 130	30	
Chloroform	ND	5.0	102	102	0.0	99	102	3.0	70 - 130	30	
Chloromethane	ND	5.0	96	96	0.0	82	87	5.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	104	104	0.0	101	103	2.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	105	102	2.9	95	99	4.1	70 - 130	30	
Cyclohexane	ND	5.0	98	101	3.0	97	102	5.0	70 - 130	30	
Dibromochloromethane	ND	3.0	107	107	0.0	98	105	6.9	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	97	100	3.0	86	90	4.5	70 - 130	30	
Ethylbenzene	ND	1.0	103	106	2.9	102	106	3.8	70 - 130	30	

QA/QC Data

SDG I.D.: GCK21635

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Isopropylbenzene	ND	1.0	104	108	3.8	105	109	3.7	70 - 130	30
m&p-Xylene	ND	2.0	102	105	2.9	97	104	7.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	90	88	2.2	71	75	5.5	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	106	103	2.9	96	98	2.1	70 - 130	30
Methylacetate	ND	5.0	100	98	2.0	98	110	11.5	70 - 130	30
Methylcyclohexane	ND	5.0	99	103	4.0	96	103	7.0	70 - 130	30
Methylene chloride	ND	5.0	88	86	2.3	84	86	2.4	70 - 130	30
o-Xylene	ND	2.0	102	103	1.0	99	103	4.0	70 - 130	30
Styrene	ND	5.0	103	104	1.0	95	100	5.1	70 - 130	30
Tetrachloroethene	ND	5.0	105	107	1.9	100	105	4.9	70 - 130	30
Toluene	ND	1.0	101	104	2.9	98	102	4.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	106	110	3.7	103	107	3.8	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	105	102	2.9	93	98	5.2	70 - 130	30
Trichloroethene	ND	5.0	101	104	2.9	99	103	4.0	70 - 130	30
Trichlorofluoromethane	ND	5.0	112	115	2.6	109	114	4.5	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	112	115	2.6	112	115	2.6	70 - 130	30
Vinyl chloride	ND	5.0	103	105	1.9	93	100	7.3	70 - 130	30
% 1,2-dichlorobenzene-d4	95	%	99	98	1.0	97	98	1.0	70 - 130	30
% Bromofluorobenzene	102	%	101	100	1.0	99	100	1.0	70 - 130	30
% Dibromofluoromethane	99	%	103	101	2.0	99	101	2.0	70 - 130	30
% Toluene-d8	96	%	103	103	0.0	102	102	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
January 26, 2022

Wednesday, January 26, 2022

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCK21635 - TIGHE-EVER

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: EVERSOURCE-ROCKVILLE LINES 16 ***Project Number:***

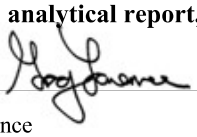
Laboratory Sample ID(s): CK21635, CK21636 ***Sampling Date(s):*** 1/24/2022

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7470/7471, 8081, 8082, 8151, 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ETPH Narration, PCB Narration, PEST Narration, SVOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, January 26, 2022

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

CTDEP RCP Laboratory Analysis QA/QC Certification Form - November 2007
Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocols

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Tel. (860) 645-1102 Fax (860) 645-0823

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RCP Certification Report

January 26, 2022

SDG I.D.: GCK21635

SDG Comments

The client requested a short list for 8260 RCP Volatile and 8270 RCP Semivolatile. The TCL analytes are reported as requested on the chain of custody.

Metals Analysis:
The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody. The following analytes from the 6010 RCP Metals list were not reported: Antimony, Beryllium, Copper, Nickel, Thallium, Vanadium, Zinc.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 01/25/22-1 Tara Banning, Chemist 01/25/22

CK21635 , CK21636

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 609440 (CK20805)

CK21635, CK21636

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 609354 (Samples: CK21635, CK21636): -----

The LCS/LCSD recovery is above the upper range. The site MS/MSD is acceptable. No significant bias is suspected. (Ext. Petroleum H.C. (C9-C36))

Instrument:

AU-FID21 01/24/22-1 Jeff Bucko, Chemist 01/24/22

CK21636 (1X)

The initial calibration (ET_0117I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (124A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 01/24/22-1 Jeff Bucko, Chemist 01/24/22

CK21635 (1X)

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ETPH Narration

The initial calibration (ETPH104I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (124A004) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Site Specific):

Batch 609354 (CK21636)

CK21635, CK21636

All LCS recoveries were within 60 - 120 with the following exceptions: Ext. Petroleum H.C. (C9-C36)(126%)
All LCSD recoveries were within 60 - 120 with the following exceptions: Ext. Petroleum H.C. (C9-C36)(122%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 50 - 150 with the following exceptions: None.
All MSD recoveries were within 50 - 150 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Herbicide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-ECD12 01/25/22-1 Jeff Bucko, Chemist 01/25/22

CK21635 (10X), CK21636 (10X)

The initial calibration (HRB125AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (HRB125BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:
Samples: CK21635, CK21636
Preceding CC 125B012 - None.
Succeeding CC 125B025 - 2,4-DB (12) -17%L (15%)

QC (Batch Specific):

Batch 609365 (CK21755)

CK21635, CK21636

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 01/25/22 08:02 Alex Purdue, Chemist 01/25/22

CK21635, CK21636

The method preparation blank, ICB, and CCBs contain all of the acids and reagents as the samples.

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SDG I.D.: GCK21635

Mercury Narration

The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 609426 (CK21750)

CK21635, CK21636

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS-2 01/25/22 07:53 Emily Kolominskaya, Chemist 01/25/22

CK21635, CK21636

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 609346 (CK20929)

CK21635, CK21636

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All LCSD recoveries were within 75 - 125 with the following exceptions: None.
All LCS/LCSD RPDs were less than 35% with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 609348 (Samples: CK21635, CK21636): -----

The MS/MSD RPD exceeds the method criteria for one analyte, therefore there may be variability in the reported result. (PCB-1260)

Instrument:

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January 26, 2022

SDG I.D.: GCK21635

PCB Narration

AU-ECD5 01/25/22-1 Saadia Chudary, Chemist 01/25/22

CK21635 (10X), CK21636 (10X)

The initial calibration (PC0124AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0124BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

QC (Site Specific):

Batch 609348 (CK21635)

CK21635, CK21636

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: PCB-1260(37.8%)

PEST Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 609349 (Samples: CK21635, CK21636): -----

The LCS/LCSD is below the method criteria. A low bias is possible. (d-BHC)

Instrument:

AU-ECD7 01/25/22-1 Adam Werner, Chemist 01/25/22

CK21635 (2X), CK21636 (2X)

The initial calibration (PS0112AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS0112BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

QC (Site Specific):

Batch 609349 (CK21635)

CK21635, CK21636

All LCS recoveries were within 40 - 140 with the following exceptions: d-BHC(37%)
All LCSD recoveries were within 40 - 140 with the following exceptions: d-BHC(32%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 150 with the following exceptions: None.
All MSD recoveries were within 30 - 150 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.

SVOA Narration

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RCP Certification Report

January 26, 2022

SDG I.D.: GCK21635

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 609352 (Samples: CK21635, CK21636): -----

The LCS/LCSD is below the method criteria. A low bias for these analytes is possible. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol)

The LCS/LCSD RPD exceeds the method criteria for one analyte, but this analyte was not reported in the sample(s). No significant variability is suspected. (4,6-Dinitro-2-methylphenol)

The QC recoveries for one analyte are below the method criteria. A low bias is possible. (Hexachlorocyclopentadiene)

Instrument:

CHEM19 01/24/22-1 Matt Richard, Chemist 01/24/22

CK21635 (1X), CK21636 (1X)

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM19/19_SPLIT_0117):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.065 (0.1), Hexachlorobenzene 0.093 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0124_05-19_SPLIT_0117):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.075 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 609352 (CK21508)

CK21635, CK21636

All LCS recoveries were within 40 - 140 with the following exceptions: 2,4-Dinitrophenol(12%), 4,6-Dinitro-2-methylphenol(18%), Hexachlorocyclopentadiene(39%)
All LCSD recoveries were within 40 - 140 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(12%), Hexachlorocyclopentadiene(39%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(40.0%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

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RCP Certification Report

January 26, 2022

SDG I.D.: GCK21635

VOA Narration

Instrument:

CHEM18 01/24/22-2 Jane Li, Chemist 01/24/22

CK21635 (1X), CK21636 (1X)

Initial Calibration Evaluation (CHEM18/VT-M011222):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 27% (20%), Methylene chloride 27% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: None.
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM18/0124_37-VT-M011222):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

CHEM18 01/25/22-1 Jane Li, Chemist 01/25/22

CK21636 (50X)

Initial Calibration Evaluation (CHEM18/VT-M011222):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM18/0125_02-VT-M011222):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

QC (Batch Specific):

Batch 609478 (CK22254) CHEM18 1/24/2022-2

CK21635(1X), CK21636(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Batch 609617H (CK22253) CHEM18 1/25/2022-1

CK21636(50X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

January 26, 2022

SDG I.D.: GCK21635

VOA Narration

Temperature Narration

The samples were received at 4.1C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 4.1 °C Pg 1 of 1

Data Delivery/Contact Options:
[ ] Fax: Rqille@tighebond.com
[ ] Phone: drew.blicharz@eversource.com
[■] Email: bcaswell@tighebond.com

Customer: Tighe & Bond, Inc.
Address: 213 Court Street, Suite 1100
Middletown, CT
Attn Ben Caswell

Project: Eversource -Rockville Lines 1606/1724
Report to: Drew Blicharz/Ben Caswell
Invoice to: Eversource Direct Bill-Attn. Drew Blicharz
QUOTE #

Project P.O: 10948703

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: _____ Date: 10/4/22

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
B=Bulk L=Liquid X= _____(Other)

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	TCL VOCs via EPA Method 8260C	TCL SVOCs via EPA Method 8270D	TPH EPA Method 8015B	PCBs via EPA Method 8082A	RCRA 8 Metals via EPA Method 6000/7000	Ignitability/ Flashpoint, pH, Conductivity	TCL Pesticides EPA Method 8081B	Herbicides Method 8151A	Paint Filter Test, Reactive sulfide and cyanide	MS/MSD *	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container (4) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/hio	Bacteria Bottle as is
21k035	STR-6713-ENV	S	10/4/22	1040	X	X	X	X	X	X	X	X	X			3	2	1								
21k036	STR-6713-ENV (2-3')			930	X	X	X	X	X	X	X	X	X			3	2									
21k037	STR-6713-ENV (5-10')			950													1									
21k038	STR-6713-ENV (10-15')			915													1									
21k039	STR-6713-ENV (15-20')			935													1									
21k040	STR-6713-ENV (20-25')			1005													1									
21k041	STR-6713-ENV (25-26.5')			1030													1									

Relinquished by:	Accepted by:	Date:	Time:
		10/4/22	11:07

Comments, Special Requirements or Regulations:
Project Referance: 1606/1724 Lines Rockville 14W Conduit and STR 6713
Hold remaining samples

**MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.*

Turnaround Time:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard-5 day
[ ] Other
* SURCHARGE APPLIES

RI
[ ] (Residential) Direct Exposure
[ ] (Comm/Industrial) Direct Exposure
[ ] GA Leachability
[ ] GB Leachability
[ ] GA-GW Objectives
[ ] GB-GW Objectives

CT
[■] RCP Cert
[ ] GW Protection
[ ] SW Protection
[■] GA Mobility
[ ] GB Mobility
[■] Residential DEC
[■] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1 [ ] MWRA eSMART
[ ] GW-2 [ ] S-1 10% CALC
[ ] GW-3
[ ] S-1 GW-1 [ ] S-1 GW-2 [ ] S-1 GW-3
[ ] S-2 GW-1 [ ] S-2 GW-2 [ ] S-2 GW-3
[ ] S-3 GW-1 [ ] S-3 GW-2 [ ] S-3 GW-3
[ ] SW Protection

State where samples were collected: CT

Data Format
[ ] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[■] Other-Envirodata

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Friday, March 18, 2022

Attn: Drew Blicharz
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: **EVERSOURCE-ROCKVILLE LINES 1606/1724**
SDG ID: **GCK78874**
Sample ID#s: CK78882, CK78888 - CK78890

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX
Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG Comments

March 18, 2022

SDG I.D.: GCK78874

CK78890 - Client provided soil jar for volatile analysis. Phoenix prepared sample per method 5035.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

March 18, 2022

SDG I.D.: GCK78874

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724

Client Id	Lab Id	Matrix
SS-5 (0.5-2`)	CK78882	SOIL
SS-8 (0.5-2`)	CK78888	SOIL
SS-8 (2-4`)	CK78889	SOIL
ROCKVILLE COMP	CK78890	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 18, 2022

FOR: Attn: Drew Blicharz
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/03/22	11:15
Location Code:	TIGHE-EVER	Received by:	CP	03/03/22	15:50
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	10948703				

Laboratory Data

SDG ID: GCK78874
Phoenix ID: CK78882

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: SS-5 (0.5-2`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		03/03/22	K	SW846-%Solid
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dichloroethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
2-Hexanone	ND	35	ug/kg	1	03/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	35	ug/kg	1	03/04/22	JLI	SW8260C
Acetone	ND	70	ug/kg	1	03/04/22	JLI	SW8260C
Benzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Bromochloromethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Bromodichloromethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Bromoform	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Bromomethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Carbon Disulfide	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Carbon tetrachloride	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Chlorobenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724 Phoenix I.D.: CK78882
Client ID: SS-5 (0.5-2`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Chloroform	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Chloromethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Cyclohexane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Dibromochloromethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Ethylbenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Isopropylbenzene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
m&p-Xylene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Methyl ethyl ketone	ND	42	ug/kg	1	03/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/kg	1	03/04/22	JLI	SW8260C
Methylacetate	ND	5.6	ug/kg	1	03/04/22	JLI	SW8260C
Methylcyclohexane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Methylene chloride	ND	35	ug/kg	1	03/04/22	JLI	SW8260C
o-Xylene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Styrene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Tetrachloroethene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Toluene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Total Xylenes	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Trichloroethene	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
Vinyl chloride	ND	7.0	ug/kg	1	03/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	03/04/22	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	03/04/22	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	03/04/22	JLI	70 - 130 %
% Toluene-d8	98		%	1	03/04/22	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	100	ug/kg	1	03/04/22	JLI	SW8260C

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724 Phoenix I.D.: CK78882
Client ID: SS-5 (0.5-2`)

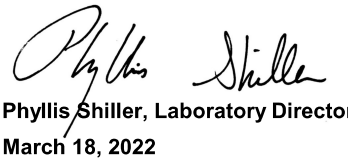
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
March 18, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 18, 2022

FOR: Attn: Drew Blicharz
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/03/22	14:15
Location Code:	TIGHE-EVER	Received by:	CP	03/03/22	15:50
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:	10948703				

Laboratory Data

SDG ID: GCK78874
Phoenix ID: CK78888

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: SS-8 (0.5-2`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	84		%		03/03/22	K	SW846-%Solid	
Extraction of ETPH	Completed				03/16/22	R/L	SW3545A	
Extraction for PCB	Completed				03/16/22	B/X/K/CK	SW3540C	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	960	300	mg/Kg	5	03/17/22	JRB	CTETPH 8015D	
Identification	**		mg/Kg	5	03/17/22	JRB	CTETPH 8015D	
QA/QC Surrogates								
% COD (surr)	36		%	5	03/17/22	JRB	50 - 150 %	3
% Terphenyl (surr)	68		%	5	03/17/22	JRB	50 - 150 %	
PCB (Soxhlet SW3540C)								
PCB-1016	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1221	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1232	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1242	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1248	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1254	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1260	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1262	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
PCB-1268	ND	390	ug/Kg	10	03/17/22	SC	SW8082A	
QA/QC Surrogates								
% DCBP	77		%	10	03/17/22	SC	30 - 150 %	
% DCBP (Confirmation)	69		%	10	03/17/22	SC	30 - 150 %	
% TCMX	65		%	10	03/17/22	SC	30 - 150 %	
% TCMX (Confirmation)	68		%	10	03/17/22	SC	30 - 150 %	

Ver 2

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: SS-8 (0.5-2`)

Phoenix I.D.: CK78888

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dichloroethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
2-Hexanone	ND	24	ug/kg	1	03/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/kg	1	03/04/22	JLI	SW8260C
Acetone	ND	49	ug/kg	1	03/04/22	JLI	SW8260C
Benzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Bromochloromethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Bromodichloromethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Bromoform	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Bromomethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Carbon Disulfide	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Carbon tetrachloride	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Chlorobenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Chloroethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Chloroform	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Chloromethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Cyclohexane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Dibromochloromethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Ethylbenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Isopropylbenzene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
m&p-Xylene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Methyl ethyl ketone	ND	29	ug/kg	1	03/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.8	ug/kg	1	03/04/22	JLI	SW8260C
Methylacetate	ND	3.9	ug/kg	1	03/04/22	JLI	SW8260C
Methylcyclohexane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Methylene chloride	ND	24	ug/kg	1	03/04/22	JLI	SW8260C
o-Xylene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Styrene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Tetrachloroethene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Toluene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Total Xylenes	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724 Phoenix I.D.: CK78888
Client ID: SS-8 (0.5-2`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
Vinyl chloride	ND	4.9	ug/kg	1	03/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	03/04/22	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	03/04/22	JLI	70 - 130 %
% Dibromofluoromethane	93		%	1	03/04/22	JLI	70 - 130 %
% Toluene-d8	97		%	1	03/04/22	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	73	ug/kg	1	03/04/22	JLI	SW8260C

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
March 18, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 18, 2022

FOR: Attn: Drew Blicharz
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/03/22	14:35
Location Code:	TIGHE-EVER	Received by:	CP	03/03/22	15:50
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:	10948703				

Laboratory Data

SDG ID: GCK78874
Phoenix ID: CK78889

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: SS-8 (2-4`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	83		%		03/16/22	K	SW846-%Solid
Extraction of ETPH	Completed				03/16/22	R/L	SW3545A
Extraction for PCB	Completed				03/16/22	B/X/K/CK	SW3540C
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	470	300	mg/Kg	5	03/17/22	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	03/17/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% COD (surr)	73		%	5	03/17/22	JRB	50 - 150 %
% Terphenyl (surr)	78		%	5	03/17/22	JRB	50 - 150 %
PCB (Soxhlet SW3540C)							
PCB-1016	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1221	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1232	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1242	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1248	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1254	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1260	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1262	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
PCB-1268	ND	390	ug/Kg	10	03/17/22	SC	SW8082A
QA/QC Surrogates							
% DCBP	83		%	10	03/17/22	SC	30 - 150 %
% DCBP (Confirmation)	72		%	10	03/17/22	SC	30 - 150 %
% TCMX	66		%	10	03/17/22	SC	30 - 150 %
% TCMX (Confirmation)	72		%	10	03/17/22	SC	30 - 150 %

Ver 2

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724 Phoenix I.D.: CK78889
Client ID: SS-8 (2-4`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
March 18, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 18, 2022

FOR: Attn: Drew Blicharz
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/03/22	14:40
Location Code:	TIGHE-EVER	Received by:	CP	03/03/22	15:50
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	10948703				

Laboratory Data

SDG ID: GCK78874
Phoenix ID: CK78890

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: ROCKVILLE COMP

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	03/05/22	CPP	SW6010D
Arsenic	11.4	0.75	mg/Kg	1	03/05/22	CPP	SW6010D
Barium	87.3	0.37	mg/Kg	1	03/05/22	EK	SW6010D
Cadmium	1.03	0.37	mg/Kg	1	03/05/22	CPP	SW6010D
Chromium	13.9	0.37	mg/Kg	1	03/05/22	CPP	SW6010D
Mercury	0.41	0.03	mg/Kg	2	03/04/22	AP	SW7471B
Lead	71.9	0.37	mg/Kg	1	03/05/22	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	03/05/22	CPP	SW6010D
Percent Solid	86		%		03/03/22	K	SW846-%Solid
Conductivity - Soil Matrix	54	5	umhos/cm	1	03/04/22	PK	SW9050A
Corrosivity	Negative		Pos/Neg	1	03/03/22	DT	SW846-Corr
Flash Point	>200	200	Degree F	1	03/07/22	G	SW1010B
Ignitability	Passed	140	degree F	1	03/07/22	G	SW846-Ignit
pH at 25C - Soil	6.94	1.00	pH Units	1	03/03/22 21:59	DT	SW846 9045D
Reactivity Cyanide	< 5	5	mg/Kg	1	03/04/22	MM/DK	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	03/04/22	DK/GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	03/04/22	DK/GD	SW846-React
Soil Extraction for PCB	Completed				03/03/22	O/E	SW3545A
Soil Extraction for Pesticide	Completed				03/03/22	O/E	SW3545A
Mercury Digestion	Completed				03/04/22	AB/AB	SW7471B
Extraction of ETPH	Completed				03/03/22	I/E	SW3546
Soil Extraction for Herbicide	Completed				03/03/22	M/D	SW3546
Soil Extraction for SVOA	Completed				03/03/22	R	SW3546
Paint Filter Test	Passed		PASS/FAIL		03/04/22	B	SW9095B
Total Metals Digest	Completed				03/04/22	P/AG	SW3050B

Project ID: EVERSOURCE-ROCKVILLE LINES 1606/1724
Client ID: ROCKVILLE COMP
Phoenix I.D.: CK78890

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chlorinated Herbicides							
2,4,5-T	ND	140	ug/Kg	10	03/07/22	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	03/07/22	JRB	SW8151A
2,4-D	ND	290	ug/Kg	10	03/07/22	JRB	SW8151A
2,4-DB	ND	2900	ug/Kg	10	03/07/22	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	03/07/22	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	03/07/22	JRB	SW8151A
Dichloroprop	ND	290	ug/Kg	10	03/07/22	JRB	SW8151A
Dinoseb	ND	290	ug/Kg	10	03/07/22	JRB	SW8151A
QA/QC Surrogates							
% DCAA	86		%	10	03/07/22	JRB	30 - 150 %
% DCAA (Confirmation)	85		%	10	03/07/22	JRB	30 - 150 %
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	910	290	mg/Kg	5	03/06/22	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	03/06/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% COD (surr)	76		%	5	03/06/22	JRB	50 - 150 %
% Terphenyl (surr)	68		%	5	03/06/22	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1221	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1232	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1242	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1248	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1254	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1260	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1262	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
PCB-1268	ND	380	ug/Kg	10	03/04/22	SC	SW8082A
QA/QC Surrogates							
% DCBP	74		%	10	03/04/22	SC	30 - 150 %
% DCBP (Confirmation)	67		%	10	03/04/22	SC	30 - 150 %
% TCMX	79		%	10	03/04/22	SC	30 - 150 %
% TCMX (Confirmation)	78		%	10	03/04/22	SC	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.5	ug/Kg	2	03/07/22	AW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/07/22	AW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/07/22	AW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/07/22	AW	SW8081B
Alachlor	ND	7.6	ug/Kg	2	03/07/22	AW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/07/22	AW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/07/22	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	03/07/22	AW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/07/22	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	03/07/22	AW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	03/07/22	AW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	03/07/22	AW	SW8081B