
SITE INVESTIGATION REPORT
RIDEM File No. SR-22-0587

Former Harrison Avenue Site – Rogers High School

15 Wickham Road
Newport, Rhode Island

PREPARED FOR



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1

Introduction and Objectives [§ 1.8.3(A)(1)]

Vanasse Hangen Brustlin Inc. (VHB) was retained by the City of Newport (the Client) in April 2024 to conduct a Site Investigation of the former Harrison Avenue Site (the Site), located at the William S. Rogers High School (Rogers High School) at 15 Wickham Road in Newport, Rhode Island, hereinafter referred to as the “Subject Property” as shown on **Figure 1**. The Subject Property is further described as including 0 Harrison Avenue and 109 Old Fort Road, identified by the City of Newport Assessor as Assessor’s Plat (AP) 41, Lot 2 (15 Wickham Road), Lot 20 (Harrison Avenue) and Lot 300 (109 Old Fort Road). The Rhode Island Department of Environmental Management (RIDEM or the Department) Office of Land Revitalization and Sustainable Materials Management (LRSMM) indicated the need for the City to perform a site investigation to further define the extent of was referred to as the former dump.

The former Harrison Avenue Site (i.e., the Site) is believed to date back to the 1940s and comprised portions of the existing Rogers High School property, described as approximately 3-acres of land on AP 41, Lot 2, located north of the Vocational Technical School/Rogers High School in the vicinity of the existing track, however the full extent of the Site is unknown. It was primarily used for the disposal of fill material; demolition debris had been observed on-Site which included blocks of concrete, wood, asphalt and bricks. Waste materials, particularly sludge from a municipal Combined Sewer Overflow (CSO) project, was also noted to have been imported to the Site. The former landfill was ultimately capped with 24 inches of clean fill and maintained as a track and field facility by the City. The Site was assigned RIDEM File No. SR-22-0587.

Pre-characterization sampling for the Rogers High School Project, which involved demolition of portions of the existing school and reconstruction of new school facilities, was initiated by Pare Corporation (Pare) in 2022 to facilitate Project construction. A Release Notification was submitted to the RIDEM on April 20, 2022 by Pare due to compounds in soil reported in exceedance of applicable RIDEM Method 1 Criteria, for which the RIDEM assigned RIDEM File No. SR-22-1001 (Rogers High School & Technical Center).

VHB reviewed available RIDEM records pertaining to the Site, solicited guidance from the RIDEM and ultimately met with the RIDEM and the Client in February 2024. Based on initial research and comments provided by RIDEM regarding additional data needs, VHB prepared and submitted a Site Investigation Work Plan (SIWP) dated August 21, 2024, to the RIDEM, detailing the proposed investigation activities.

Prior to initiating the Site Investigation, Pre-Site Investigation Public Notices were provided to the Department for review and approval before mailing on August 21, 2024. Copies of the final public notice mailings were also provided to the Department on the same day.

The SIWP was approved by the Department on September 9, 2024 and Site Investigations were initiated by VHB in mid-September and generally completed in early November 2024. VHB met with the Client and the Department on February 27, 2025 to discuss the preliminary findings of the Site investigation. Based on the need to further delineate hazardous concentrations of lead and further evaluate exceedances of total metals in groundwater prior to developing a remedy, VHB completed additional soil borings/sampling, installation of a new monitoring well and additional groundwater sampling within the lead area in April 2025.

This Site Investigation Report (SIR) was prepared to further document the nature and extent of contamination associated with the former Harrison Avenue Site in accordance with Section 1.8 of the Rhode Island Department of Environmental Management (RIDEM) Office of LRSMM 250-RICR-140-30-1, the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations), and the Limitations provided in **Appendix A**.



2

Release Notification Form [§ 1.8.3(A)(2)]

Initial testing relative to the Site was reported in various Field Investigation Reports and analytical reports in 1989. Contaminants were said to include lead and were considered nonhazardous. The Site was later assigned RIDEM File No. SR-22-0587.

Pare submitted a Release Notification Form (RNF) to the Department on April 20, 2022 for the Rogers High School Project due to the presence of PAHs, lead, arsenic, and total petroleum hydrocarbons (TPH) in exceedance of RIDEM Method 1 Criteria. RIDEM assigned File No. SR-22-1001 (Rogers High School & Technical Center).

3

Incident or Release History [§ 1.8.3(A)(3)]

The Site is believed to date back to the 1940s and was said to primarily be used for the disposal of fill material; demolition debris had been observed on-Site which included blocks of concrete, wood, asphalt and bricks. Waste materials, particularly sludge from a municipal Combined Sewer Overflow (CSO) project, was also noted to have been imported to the Site. Historical investigations suggested soil was contaminated with lead, which was reported at concentrations which were not considered hazardous.

The former landfill was ultimately capped with 24 inches of clean fill and maintained as a track and field facility by the City. **Section 5** further details the Site history based on available historical reports.



4

Owners, Operators, and Property Transfers [§ 1.8.3(A)(4)]

The Site is owned and operated entirely by the City of Newport, who appears to have owned the Site since at least October 6, 1953, as stated on the property card maintained by the City's Assessor's Office.

Prior to ownership by the City the Subject Property was associated with "Battery O'Shea," an anti-aircraft unit during World War II. Limited information pertaining to the Subject Property's use by the Navy prior to the City's ownership was available.

5

Site Reports and Plans [§ 1.8.3(A)(5)]

The RIDEM provided any available documents pertaining to the Site, ranging from 1981 to 1995, for review as part of the proposed Site investigation. The most relevant information is included below.

- › March 30, 1981 Field Investigation Report describing a Site Walk conducted by a representative from the RIDEM accompanied by a State Legislative Representative from Newport. According to the report the area appeared to have been used for a “dump” sometime in the past based on the presence of debris laying at the base of the slope, some which “was quite old and some was not over 10 or 15 years old.” The report stated that the old landfill was covered with common fill on the top and building rubble on the sides. The face of the “dump” and the area adjacent to it was thoroughly checked for signs of leachate outbreaks, odors, stressed vegetation, and radioactivity. The investigation did not provide any evidence as to the nature of the waste material potentially onsite.
- › May 24, 1988 Notice of Violation (NOV) was issued to the City of Newport for operating a landfill without a license. The city was ordered to cease all waste disposal on this property and establish barriers that would prevent others from dumping on the property as well.
- › October 26, 1988 Letter from RIDEM states that the Rogers High School property had been cleaned of solid waste to the satisfaction of RIDEM and the area would be patrolled and periodic checks would be conducted to check if further dumping was occurring.
- › September 11, 1989 – Memorandum summarizing discussion regarding the property’s eligibility and classification under CERCLA. The memo states the landfill was being used as a controlled clean fill disposal area at the time and states that it was never used as a landfill. According to the memo the site was added to the CERCLA list as a medium priority Site.
- › November 7, 1989 – Consent Agreement describing the City’s intent to develop AP 41, Lot 2 as an athletic field at Rogers High School. According to the agreement RIDEM collected several samples of oil contaminated soil for laboratory analysis from materials disposed on the Site, which were associated with “hazardous constituents and pollutants as defined in R.I.G.L. 42-12 et seq and the Rules and Regulations promulgated thereunder.” The agreement allows the contaminants to be left in place provided the soil

is covered with at least 24 inches of clean fill, seeding and vegetation over unpaved areas is maintained and a deed restriction is recorded.

- › November 20, 1989 – Site Plan illustrating the limits of the contaminated material.
- › November 27, 1989 – Inter-Office Memo describes an investigation of the athletic field behind Rogers High which identified “one area between the vocational school and the electric company substation... plastic sheeting, pieces of rotted wood, rope and a metal rod protruding from the fill. In addition to the solid waste, there were two areas where colored leachate was observed flowing from the field. One point near the northeast corner had an orange and blue leachate, while another point near the center had an orange leachate.”
- › February 6, 1990 – Preliminary Assessment Report of the Harrison Avenue Site was prepared by the RIDEM in accordance with CERCLA requirements. The report identifies the “dump” as approximately 3-acres of land on AP 41, Lot 2, located north of the Newport County Vocational Technical School and Rogers High School. The property appeared to have primarily been used for the disposal of fill but noted the potential that waste materials had also been dumped on-Site. Based on a walkthrough conducted by RIDEM, demolition debris including blocks of concrete, wood, asphalt and bricks was observed within the northeast portion of the Site. In the same area, RIDEM also observed a large pile of dry sludge-like material transported to the Site by employees of the Newport Department of Public Works from construction at the Combined Sewer Overflow (CSO) project on Washington Street. West of this area was another area which appeared to be used for disposal of clean fill material. Additional complaints of dumping of solid waste materials at later dates were also discussed. Based on analytical data, the sludge material associated with the CSO was contaminated with lead but not categorized as hazardous waste. The report concludes that the Site is intended to be capped with 24 inches of clean fill and maintained as a track and field facility by the City. Surface water was noted to flow into a wetland located north of the Site, but no outlet existing allowing water to flow out of the wetland and no reservoirs were located down gradient of the site. RIDEM recommended No Further Remedial Action Plan (NFRAP).
- › July 6, 1990 – RIDEM Letter clarifying questions from the Newport School Committee. RIDEM makes the following clarifications: “1) The soil is contaminated with lead. All testing of soil at the high school site have indicated that lead levels are below hazardous waste levels. This same testing has indicated that PCBs are not present in the materials. 2) consent agreement signed by the Department of Environmental Management, the Health Department and the City of Newport requires that this material be covered with at least 24 inches of clean fill (The same standard for closing a landfill). The City has complied with this requirement. Therefore no danger from the contaminated soil is present. 3) The contractors have complied with the environmental guidelines required in the consent agreement. The contaminated soil has been covered with at least 24 inches of clean fill; a deed restriction has been filed with the land evidence records of the City of Newport; seeding and vegetation over unpaved areas will be maintained throughout the life of the facility. 4) The contaminated soil originated from the construction site of the Washington Street CSO project. This material is being used at the CSO site as a fill material.”
- › April 5, 1995 – EPA Letter indicating their concurrence with the NFRAP decision. No additional documents relative to the Site were provided following this date.

VHB also reviewed relevant data prepared by Pare in association with the Rogers High School Project from 2021 through 2023, for which RIDEM had setup a web page as an online repository of documents pertaining to the project. Additional information pertaining to Rogers High School Project is described in VHB's SIWP and Pare's submittals.

6

Historic Site Operations, Site Inspection and Zoning [§ 1.8.3(A)(6)]

VHB has included relevant information from prior investigations, due diligence conducted by VHB or others, and supplemental Site reconnaissance to determine the historical and current operations within the Site as summarized below.

6.1 Historic and Current Site Operations

The Site and Subject Property has been owned and operated by the City of Newport since at least October 6, 1953. Prior to ownership by the City the Subject Property was associated with "Battery O'Shea," an anti-aircraft unit during World War II. Historic operations during the Site's ownership by the City is also described in **Section 5** based on historical documents pertaining to the Site.

The Site and Subject Property is currently developed as the Rogers High School which includes student and administrative buildings, athletic fields, and parking lots. The Site is currently undergoing reconstruction of the new Rogers High School.

6.2 Historic Hazardous Materials Usage and Waste Generation

The Site was primarily used for the disposal of fill material. Demolition debris had been observed on-Site which included blocks of concrete, wood, asphalt and bricks. Waste materials, particularly sludge from a Combined Sewer Overflow (CSO) project, were also noted to have been imported as fill.

6.3 Methodology and Limiting Conditions

This SIR was prepared in accordance with the following: Section 1.8 of the RIDEM Remediation Regulations; the Scope of Work between VHB and the City of Newport; and the Limitations provided in **Appendix A**.

The objective of the Site Investigation was to further characterize the nature and extent of contamination associated with the former Harrison Avenue Site. This was initiated in

accordance with VHB's SIWP and in consideration of guidance provided by RIDEM regarding additional data needs.

6.4 Interior and Exterior Observations

VHB did not conduct any interior observations as part of this SIR. Exterior areas generally consist of the grounds of Rogers High School, including athletic fields, parking lots, and landscaped areas around Site buildings. The Site generally slopes down to the east/northeast.

7

Plans and Figures [§ 1.8.3(A)(7) and § 1.8.3(A)(8)]

A locus map showing the general location of the Site in comparison to surrounding areas is provided as **Figure 1**; all test pits, hollow-stem auger/direct-push soil boring locations are shown on **Figure 2**; a relative groundwater contour map and monitoring wells are shown on **Figure 3**; and soil vapor points are shown on **Figure 4**. Collectively, these figures show (if present):

- › Buildings;
- › Activities;
- › Structures;
- › North Arrow;
- › Wells;
- › Underground Injection Control (UIC) systems, piping, and other underground structures as appropriate (none identified);
- › Outdoor hazardous materials storage and handling areas (none identified);
- › Location of environmental samples collected;
- › Waste management and disposal areas (none identified); and
- › Property lines.

VHB also relied on data collected and provided by Pare for the Rogers High School Project which has been included in relevant mapping.

8

Site and Surrounding Area Characterization [§ 1.8.3(A)(9) and § 1.8.3(A)(10)]

The Site is in a primarily residential area in Newport, Rhode Island. The Site is surrounded by Ruggles Avenue to the south, Old Fort Road to the east, Wickham Road to the west, and a substation, residential buildings, and undeveloped forested land to the north.

Immediate historic surrounding areas include Murphy Field Park to the southeast and mostly cleared land and some present-day roadways such as Ruggles Avenue to the south and Norman Street to the East, which have been developed since at least 1939. Other surrounding areas include residential areas to the north and east.

8.1 Surface Water Bodies and Wetlands within 500 Feet

Based on the Environmental Resource Map (ERM), the closest named surface water body is Lily Pond, located approximately 600 feet south/southeast from the Site. Lily Pond is classified as a Class A waterbody based on the RIDEM Water Quality Standards. Class A waters are designated for fish and wildlife habitat and primary and secondary contact recreational activities; shall be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, and irrigation and other agricultural uses; and shall have good aesthetic value. An unnamed water body is also located in close proximity to the northeast of the Site, which resembles a stormwater basin and is not classified by the RIDEM.

State-regulated Freshwater Wetlands, as defined in the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act [RIDEM, 2022 as amended] are present in the northeast portion of the Site and classified by the RIDEM ERM as “Scrub-Shrub Swamp” [RIGIS Wetland 1988 layer].

8.2 Environmentally Sensitive Areas within 500 Feet

According to Section 1.4(A)(21) of the Remediation Regulations, an Environmentally Sensitive Area includes any of the following:

- a. Areas which provide habitat for Federally endangered or threatened species as determined by the U.S. Department of Fish and Wildlife;

- b. Areas which provide habitat for State endangered or threatened species as determined by the Department through the Natural Heritage Program;
- c. Surface Water classified A, B or C by the Department or Wetlands;
- d. Coastal areas designated as Type 1 Conservation Areas or Type 2 Low-Intensity Use by the Rhode Island Coastal Resources Management Council
- e. Tidal waters classified SA by the Department;
- f. State parks, management areas, wildlife areas or marine sanctuaries; or
- g. Natural areas owned or operated by government agencies or not for-profit organizations for the purposes of preserving the natural character of the property.

Potential Environmentally sensitive areas noted within 500 feet of the Site include: a Scrub-Shrub Swamp wetland located on the northeast portion of the Site; state conservation land identified as Ballard Park abutting the Subject Property to the southwest; and local conservation land which includes the Newport Fire Station No. 2 and Murphy Field to the east.

8.3 Potable Water Sources

The Subject Property is serviced via municipal water provided by the City of Newport Department of Utilities Newport Water Division. The Department of Utilities also confirmed that nearby residences abutting the Subject Property are also serviced via municipal water; the closest known private well is located on Cherry Creek Road approximately 1,500 feet to the southwest.

8.4 Public Water Supplies

The Site does not lie within a wellhead protection area. The nearest community water system wellhead protection area is located approximately 2.7 miles to the northeast. The nearest non-community water system wellhead protection area is located approximately 2.5 miles to the northeast.

8.5 Off-Site Impacts

Based upon the findings of this investigation which has identified primarily PAHs and to a lesser extent, TPH and lead via TCLP in soil, these contaminants are likely a result of historic operations associated with the former military use and importation of fill material/debris. Although the full extent of exceedances have not been defined (i.e., no complaint samples between jurisdictional samples and the Subject Property boundary), exceedances are anticipated to be primarily limited to the extent of the area associated with historic importation of fill. Additionally, groundwater impacts (lead and arsenic) appeared more favorable in the second round of sampling in April 2025, however the presence or absence of off-Site impacts of groundwater cannot be confirmed since no sampling was conducted off-Site.

8.6 Groundwater Classification

According to the RIDEM ERM, groundwater underlying the Site and surrounding area has been classified by the as GA. Groundwater resources classified as GA are those resources that are categorized as or presumed to be suitable for drinking water use without treatment.

9

Investigation and Description of Impacts [§ 1.8.3(A)(11)]

VHB prepared a SIWP dated August 21, 2024 outlining the completion of soil borings, monitoring wells, test pitting and soil vapor screening. The SIWP relied on data collected in 2022 and 2023 to supplement the additional investigations to further delineate the nature and extent of contamination associated with the Site. The Site investigation focused on the area surrounding the track, since this was the area historically referenced as being associated with the alleged dump, a portion of which was known to be restricted via Environmental Land Use Restriction (ELUR) due to historical contaminants remaining in place. VHB noted the ELUR was never provided, however its extent was illustrated in other plans.

Following RIDEM approval of the SIWP, VHB initiated Site investigations from September 18, 2024, to November 6, 2024, in general accordance with the SIWP. VHB met with the Client and the Department on February 27, 2025 to discuss the preliminary findings of the Site investigations. Based on the need to further delineate hazardous concentrations of lead and further evaluate exceedances of total metals in groundwater prior to developing a remedy, VHB completed additional soil borings/sampling within the lead area on April 17, 2025 and groundwater sampling on April 29, 2025.

The results of VHB's sampling and analysis are summarized in the following tables: **Table 1** (Site-wide test pits and soil borings), **Table 2a** (hazardous lead area – lead results), **Table 2b** (hazardous lead area – PAH results), **Table 3** (groundwater), and **Table 4** (soil vapor points).

This section provides details regarding the scope of VHB's investigations completed in general accordance with the SIWP, and a description of the findings and impacts identified.

9.1 Site Investigation

9.1.1 Test Pits

VHB completed eight (8) test pits (TP-1 through TP-8) via mini-excavator on September 17, 2024 as shown on **Figure 2** in an effort to further delineate the limits of the historical fill area. The test pits were advanced to a maximum depth of 3 to 6 feet below grade generally due to refusal encountered.

VHB collected 1 composite sample from the full depth of each test pit ranging from 0-3 feet to 0-6 feet below grade. Soils were screened for total VOCs via photoionization detector (PID) which ranged from 0.0 to 0.2 parts per million (ppm). Samples were containerized in laboratory provided glassware and submitted for analysis via standard chain-of-custody for total metals, semi volatile organic compounds (SVOCs), volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and polychlorinated biphenyls (PCBs). All soils and debris removed from the test pits was placed back into the hole from which it was generated and compacted via the excavator bucket. The test pits logs are attached in **Appendix B**.

9.1.2 Soil Borings/Sampling and Monitoring Well Installation – Stockpile Area

VHB completed three (3) soil borings (VHB-SB-1 through VHB-SB-3) via direct-push methodologies on September 18, 2024, to facilitate sampling below the existing stockpile located in the infield area of the school's athletic track, as shown on **Figure 2**. Boring locations were chosen to provide representative coverage underneath the stockpile area and within the ELUR area. Since the stockpile was previously characterized and not related to investigating the Site, no soil samples were collected from the above-grade stockpiled soil.

VHB collected a surficial soil sample (relative to the estimated pre-existing ground surface grade beneath the stockpile) from each soil boring at an approximate depth of 17.5 – 20 feet below the top of the stockpile, and collected two subsurface samples at 22.5-25 feet at VHB-SB-2 and at 30-32.5 feet at VHB-SB-3. No subsurface sample was collected at VHB-SB-1 due to refusal at 23 feet. The samples were screened for total VOCs via PID which ranged from 0.0 to 12.2 ppm. Samples were containerized in laboratory provided glassware and submitted for analysis via standard chain-of-custody for analyzed for metals, SVOCs, VOCs, TPH, and PCBs.

1-inch diameter groundwater monitoring wells were installed in VHB-SB-2 and VHB-SB-3 ranging from 33.5 to 40 feet from the top of the stockpile. Each well was constructed of a 10-foot PVC screened interval installed to intercept the groundwater table and a riser pipe to slightly above the stockpile grade. Each well included clean sand within the borehole annulus and surrounding the screened interval with a one-to-two-foot bentonite seal above the sand layer. The wells were finished with a protective steel standpipe set in a concrete collar. All soil removed from the borings was placed back into the hole from which it was generated in generally the same manner (i.e., subsurface soils, followed by surficial soil) to the extent feasible. Excess soil which could not be placed back into the borehole remained in the vicinity of the location from which it came. The soil boring logs are included in **Appendix B**.

9.1.3 Soil Borings/Sampling and Monitoring Well Installation – Site-Wide

VHB completed eight (8) hollow stem auger borings (VHB-HSA-1 through VHB-HSA-8) across the former landfill area for the installation of groundwater monitoring wells, on October 2 and October 3, 2024, as shown on **Figure 2**. The locations were generally co-located with test pitting locations (i.e., just outside of the test pit footprint) where soil sampling had already been completed (refer to **Section 9.1.1** above), therefore no soil samples were taken from VHB-HSA-1, VHB-HSA-5, VHB-HSA-6, VHB-HSA-7, and VHB-HSA-8 since the boring depths were similar to the test pit sample depths. Soil samples were

screened every 5-feet for total VOCs via PID, and the screening results ranged from 0.0 to 0.2 ppm.

Subsurface samples were containerized in laboratory provided glassware at locations which were deeper than the corresponding test pit samples, from 5-7 feet below grade within VHB-HSA-2, VHB-HSA-3, and VHB-HSA-4, and were submitted for analysis via standard chain-of-custody for metals, SVOCs, VOCs, TPH, and PCBs.

One 2-inch diameter groundwater monitoring well was installed in VHB-HSA-2. The well was constructed of a 5-foot PVC screened interval installed to intercept the groundwater table and a riser pipe to slightly above grade. The well included clean sand within the borehole annulus surrounding the screened interval, a 1–2-foot (approximate) bentonite seal, native soils to grade, and a protective steel standpipe set in the ground surrounding the PVC riser within a concrete collar. No other groundwater monitoring wells could be installed due to shallow refusal before intercepting groundwater in all other boring locations. The soil boring logs are included in **Appendix B**.

9.1.4 Soil Borings/Sampling and Monitoring Well Installation – Lead Area

VHB completed thirteen (13) soil borings (VHB-1 through VHB-12) October 9, 2024 in an area previously associated with a hazardous concentration of lead via toxicity characteristic leaching procedure (TCLP) in soil at TP-23-5 from a depth of 8-10 feet deep. Boring locations were chosen based on an approximate grid pattern surrounding the previous test pit location and VHB collected samples at each boring at 2.5 foot intervals to further delineate the area horizontally and vertically. Samples were screened for total VOCs via PID which ranged from 0.0 to 25.5 ppm. All samples were analyzed for total lead and the first three intervals (0-2.5 feet, 2.5-5 feet, 5-7.5 feet) of VHB-1, VHB-2, VHB-3, VHB-4, and TP23-5, were also analyzed for PAHs.

VHB later completed an additional thirteen (13) soil borings (VHB-100 through VHB-112) on April 17, 2025 within the area associated with hazardous lead. Boring locations were chosen based on an approximate grid pattern to extend beyond the area previously investigated due to the widespread extent of hazardous lead previously reported and to characterize potential hazardous lead concentrations further east in anticipation of proposed utility work as part of the Rogers High School Project. Samples were collected at 5-foot intervals to a depth of 15 feet and screened for total VOCs via PID which ranged from 0.0 to 25.5 ppm. All samples were and submitted for analysis via standard chain-of-custody for total lead.

One 1-inch diameter groundwater monitoring well was installed upgradient of TP-23-5 on April 17, 2025. The monitoring well was identified as TP-23-5B (boring location of VHB-111). The well was constructed with a 10-foot PVC screen installed to intercept the groundwater table. The well included clean sand within the borehole annulus surrounding the screened interval, a 1–2-foot (approximate) bentonite seal, native soils to grade, and a road box. The soil boring logs are included in **Appendix B**.

9.1.5 Soil Vapor Points

New England Geotech installed seven (7) soil vapor points (SVP-1 through SVP-7) on October 9, 2024, co-located with the test pits and hollow stem auger locations to monitor total VOCs landfill gasses. Soil gas monitoring with a Landtec meter was conducted at each of the soil vapor points on October 15, 2024. The locations were monitored for total VOCs via PID and landfill gas parameters including oxygen, carbon dioxide, methane and hydrogen sulfide. The locations of the soil vapor points are shown on **Figure 4**. Each soil gas monitoring point consisted of a 1-foot slotted 1-inch diameter screen surrounded by clean sand and a riser pipe. The depth of the soil gas monitoring points were approximately 3-feet below the ground surface and equipped with tubing to facilitate soil gas monitoring.

9.1.6 Well Development, Sampling and Wellhead Elevation Survey

Following construction of the monitoring wells, each well was developed utilizing a submersible pump and/or a bailer to remove a minimum of 3-5 well volumes of groundwater or until the groundwater appeared clear. Purge water was placed into a 55-gallon steel drum and stored on-Site pending lab analysis.

Monitoring wells were sampled via low-flow methodology on October 15, 2024 and select wells were resampled on April 17, 2025. Samples were containerized in laboratory provided glassware and submitted for analysis via standard chain-of-custody for metals (total and/or dissolved), SVOCs, VOCs, TPH, pesticides and/or PCBs.

VHB surveyed the top-of-casing of all monitoring wells on November 6, 2024, and using the groundwater elevation data collected from the survey and the depth to groundwater gauging data collected during groundwater sampling, VHB created a groundwater flow map to identify the approximate direction of groundwater flow. Groundwater flow direction and well locations are included on **Figure 3**.

9.2 Free Liquids

No free liquids were identified on the ground surface during the investigations completed to date.

9.3 Non-Aqueous Phase Liquid

No Light Non-Aqueous Phase Liquid (LNAPL) or Dense Non-Aqueous Phase Liquid (DNAPL) was observed in any of the Site monitoring wells.

9.4 Concentrations of Hazardous Substances

Concentrations of various contaminants of concern, in Site soil and/or groundwater, if identified, are detailed below in the following sections.

9.4.1 Test Pits

Out of the eight (8) test pits completed, only one (1) test pit, identified as TP-3, contained evidence of debris, including pvc, plastic, and pieces of metal rebar. Soils generally consisted of fine to medium sands and silt with few gravel. Several large boulders and/or rocks were noted in all test pits throughout the excavations. Test pits were primarily terminated due to refusal encountered in most locations due to bedrock (i.e., ledge) or large boulders; several attempts were made in some test pit locations. Overall, the results of test pitting confirmed the Site was primarily used for the importation of fill material as described in historical reports. Sampling conducted during test pitting is discussed in the following section. The test pit logs are included in **Appendix C**.

9.4.2 Soil Sampling Analytical Data

A total of one hundred and eighteen (118) soil samples were submitted for laboratory analysis in September and October 2024 and April 2025 as part of the investigations as summarized on **Table 1** (Soil Analytical – Site-Wide), **Table 2a** (Soil Analytical – Lead Area, lead only), and **Table 2b** (Soil Analytical – Lead Area, PAHs only). Associated laboratory reports for soil data are provided in **Appendix D** and locations are shown on **Figure 2**. The results of laboratory analysis were compared to the RIDEM Method 1 RDEC, I/CDEC and GA Leachability Criteria, and the EPA MCCTC standards. VHB notes that the RIDEM updated the Method 1 RDEC and I/CDEC for Arsenic from 7 to 19 mg/kg on June 24, 2025, which is reflected herein. Soil samples with exceedances of either RDEC, I/CDEC, GA Leachability, or EPA MCCTC are summarized in the tables below with the corresponding compounds which exceed the applicable criteria.

PAHs (Site-Wide):

Sample ID	RDEC	I/CDEC	GA-LC
VHB-TP-1-0'-4'	Numerous	Numerous	Naphthalene
VHB-TP-2-0'-5'	Numerous	Benzo[a]pyrene	
VHB-TP-3-0'-4'	Benzo[a]pyrene, Carbazole		
VHB-TP-4-0'-3'	Benzo[a]pyrene, Carbazole		
VHB-SB-3-17.5'-20'	Benzo[a]pyrene, Carbazole		
VHB-SB-3-30'-32.5'	Benzo[a]anthracene, Carbazole	Benzo[a]pyrene	
VHB-1-0'-2.5'	Chrysene		
VHB-2-0'-2.5'	Chrysene		

VHB-3-0'-2.5'	Numerous	Benzo[a]pyrene	
TP23-5-0'-2.5'	Benzo[a]pyrene, Chrysene		

TPH (Site-Wide):

Sample ID	RDEC
VHB-TP-1-0'-4'	TPH

Metals:

Sample ID	RDEC	I/CDEC	GA-LC
VHB-TP-1-0'-4'			Lead
VHB-TP-3-0'-4'			Lead

Metals (Hazardous Lead Area):

The majority of samples from the initial round of sample collection on 2024 exceeded the RIDEM Method 1 DEC, GA-LC and/or EPA hazardous waste criteria via TCLP and approximately half of the samples from April 2024 exceeded the RIDEM Method 1 DEC, GA-LC and/or EPA hazardous waste criteria via TCLP. These results are summarized in **Table 2a**.

One location (VHB-10 10-12.5') was associated with significantly higher concentrations of total lead and lead via TCLP than all other nearby samples, for which total lead was reported at 32,700 mg/kg, in exceedance of the RIDEM Upper Concentration Limit (UCL) for Hazardous Substances of 10,000 mg/kg, and lead via TCLP was reported at 630 mg/l, significantly higher than the EPA hazardous waste criteria via TCLP of 5 mg/l.

All samples which had elevated concentrations of metals were further analyzed in general accordance with the Environmental Protection Agency (EPA) 20:1 ratio for TCLP analysis (i.e., samples exceeding 100 mg/kg for lead were run for TCLP).

9.4.3 Groundwater Sampling Analytical Data

Four (4) groundwater samples were collected in October 2024 from all four (4) wells (VHB-CS, VHB-ES, VHB-HSA-MW-2, MW-23-5) for analysis of VOCs, SVOCs, PCBs, pesticides, and metals. The following compounds were reported at concentrations that exceeded the applicable RIDEM GA Groundwater Objectives:

- Total lead in VHB-ES, VHB-HSA-MW-2, and MW-23-5; and
- arsenic in VHB-ES.

In April 2025, monitoring wells associated with exceedances of total lead or arsenic were resampled and three (3) groundwater samples (VHB-ES, VHB-HSA-MW-2, and MW-23-5B) were analyzed for total/dissolved lead and/or total/dissolved arsenic. Since no GA Groundwater Objective exists for dissolved metals, VHB compared to the objective for total

for comparative purposes. Additionally, MW-23-5 was partially filled during construction activities associated with the high school, and was therefore, not viable for sampling. The following compounds were reported at concentrations that exceeded the applicable RIDEM GA Groundwater Objectives:

- Total lead in VHB-ES; and
- Total and dissolved arsenic in VHB-ES.

Chromium and zinc were detected in some wells but below the applicable RIDEM GA Groundwater Objectives. No VOCs were detected, except for Toluene in VHB-ES, below the applicable RIDEM GA Groundwater Objectives. NO SVOCs, pesticides or PCBs were detected. These results are shown on **Table 3** with monitoring well locations depicted on **Figure 3**. Certificates of Analysis for groundwater analysis are included in **Appendix E**.

9.4.4 Landfill Gas Monitoring

The seven soil vapor points (SVP-1 through SVP-7), were monitored via PID and landfill gas meter for total VOCs, oxygen, carbon dioxide, methane, and hydrogen sulfide. The results of the landfill gas screening indicated oxygen ranged between 15.7% and 21.6%, carbon dioxide between 0.3% and 5.9%, methane between 0.0% and 17.7% and hydrogen sulfide was not detected 0.0% in all sampling points. No VOCs were detected in all locations when utilizing the PID. The SVP locations are illustrated on **Figure 4** and results of the PID and landfill gas meter readings are summarized in **Table 4**.

9.5 Impacts to Environmental Sensitive Areas

Impacts to environmentally sensitive areas are not anticipated since there is no ongoing release which would be expected to impact surface water of the wetland area or other nearby potentially environmentally sensitive areas.

9.6 Contamination of Manmade Structures

VHB did not identify contamination of manmade structures (i.e., sewer lines, water lines, catch basins, manholes, etc.) as a result of this investigation.

9.7 Odors or Stained Soil

Odors or soil staining were generally not noted in soil borings during the drilling activities, which were indicative of potential OHM. Refer to boring logs in **Appendix J** and **Appendix K** for detailed soil descriptions.

9.8 Stressed Vegetation

VHB did not observe any visual evidence of stressed vegetation in the areas where work was conducted during this investigation.

9.9 Excavated or Stockpiled Material

As the Site is currently undergoing construction of the new high school, VHB observed stockpiled and excavated material throughout the Site and Subject Property which is being managed separate of this investigation by Pare and the contractor(s) associated with the Rogers High School Project.

9.10 Regulatory Jurisdiction

According to the RIDEM ERM, there are wetlands located in the northeast portion of the Site, and therefore state-regulated Freshwater Wetlands, as defined in the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act (Rules) [RIDEM, 2022 as amended] are anticipated to be present.

According to the RIDEM Environmental Resource Map, the Site does not lie within an Environmental Justice Area as defined by the RIDEM.

VHB has not identified any other current or future RIDEM regulatory jurisdictions related to the investigation or remediation of the Site, such as underground storage tanks (USTs) or underground injection controls (UICs).

10

Concentration Gradients [§ 1.8.3(A)(12)]

10.1 Soil Concentration Gradients

VHB compared soil concentration data to the RIDEM RDEC, I/CDEC, and GA Leachability Criteria (GA-LC) established in the Remediation Regulations and the EPA hazardous waste criteria, as shown on **Table 1**, **Table 2a** and **Table 2b**. VHB noted the following trends pertaining to soil contaminants across the Site:

Site-Wide

- PAHs were generally widespread across the Site, primarily reported in exceedance of the RDEC and to a lesser extent the I/CDEC
- One (1) location (VHB-TP-1) was associated with TPH reported in exceedance of the RDEC.
- The same location (VHB-TP-1) was also associated with naphthalene (PAH) reported in exceedance of the GA-LC.
- Outside of the lead area, lead via TCLP was the only metals compound reported in exceedance of applicable Method 1 Criteria, which exceeded the GA-LC via TCLP in four (4) locations and all total lead samples were compliant with the DEC.

Overall, the western portion of the Site was generally compliant with RIDEM Method 1 Criteria while the eastern portion was associated with exceedances of applicable RIDEM criteria.

Lead Area

- The majority of concentrations of total lead and lead via TCLP within the lead area were found to exceed the RIDEM DEC and/or GA-LC, although a limited number of samples were compliant with applicable state and federal criteria.
- One location (VHB-10 10-12.5') was associated with significantly higher concentrations of total lead and lead via TCLP than all other nearby samples, for which total lead was

reported at 32,700 mg/kg, in exceedance of the RIDEM UCL for Hazardous Substances, and lead via TCLP was reported at 630 mg/l.

- All concentrations of hazardous lead were reported at subsurface intervals.

Overall, concentrations of total lead and lead via TCLP in exceedance of the RIDEM DEC and/or GA-LC were widespread throughout this area and likely beyond. The extent of concentrations of hazardous lead via TCLP generally appear to be delineated, except to the northeast where elevated concentrations may continue beyond the area delineated by VHB.

10.2 Groundwater Concentration Gradients

VHB compared groundwater data to the RIDEM GA Groundwater Objectives established in the Remediation Regulations, as shown on **Table 3**. Based on the two (2) rounds of groundwater sampling conducted in 2024 and 2025, VHB noted the following observations:

- VHB-ES appears to be associated with the most persistent concentrations of metals (lead and arsenic), having exceedances of both GA Objectives during both rounds of sampling.
- Dissolved lead was not present in any of the samples, suggesting totals concentrations may be due to fine sediments rather than groundwater.
- Dissolved arsenic was also present in VHB-ES, suggesting arsenic may persist in groundwater in this location. However, VHB notes that arsenic in groundwater can be attributed to bedrock geology, although no background study has been conducted to make such a determination.

10.3 Soil Gas Concentration Gradients

The results of the soil gas readings indicated:

- oxygen between 15.7% and 21.6%.
- carbon dioxide between 0.3% and 5.9%.
- methane between 0.0% and 17.7%; and
- hydrogen sulfide at 0.0% in all sampling points.

VOCs were also not detected in any locations when utilizing the PID. The results of the PID and landfill gas meter readings are included in **Table 4**. Most notable, methane was identified at elevated concentrations in SVP-4 at a concentration of 17.7% and carbon dioxide was present at a concentration of 5.9% at SVP-6. These locations are not in close proximity to a Site building, or the potential of additional proposed Site buildings as part of future construction, and is therefore not thought to be a potential concern for vapor intrusion as described in **Section 15**.

11

Background Concentrations [§ 1.8.3(A)(13)]

VHB did not conduct any background assessments during this investigation.

12

Site and Surrounding Hydrogeology [§ 1.8.3(A)(14) and § 1.8.3(A)(15)]

12.1 Groundwater Depth and Flow Direction

Groundwater depths were gauged at the Site in October 2024 and the top of casings were surveyed in November 2024 to determine the relative wellhead elevations. The measured depth to groundwater was described to be between 6.85 (VHB-MW-2) and 32.85 feet (VHB-ES) below grade, however VHB-ES and VHB-CS monitoring wells were gauged from the top of the well risers emanating above the surface of the stockpile. The relative depths to groundwater ranged from 78.3 feet (MW-ES) to 90.2 feet (MW-23-5) based on an assumed elevation of 100 feet.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, and characteristics of the soil. The flow direction has been estimated to flow generally north/northeast based upon the relative wellhead elevation survey and the October 2024 gauging data (refer to **Figure 3**).

12.2 Natural and Man-Made Barriers/Conduits for Contamination Migration

VHB has not observed any barriers to, or conduits for, contamination migration during investigatory activities conducted at the Site.

12.3 Bedrock Geology

Bedrock was frequently encountered during the Site investigation activities; and according to the Bedrock Geologic Map of Rhode Island, the bedrock at the Site is mapped as the Porphyritic Granite. This group consists primarily of gray, pink, greenish, generally massive, coarse-grained, porphyritic (microcline phenocrysts) granite. Contains microcline, perthite, plagioclase, quartz, and accessory biotite, hornblende, apatite, sphene, and opaque minerals; secondary chlorite, epidote, and sericite. Includes some rock mapped formerly as Bulgarmarsh Granite and Newport Granite Porphyry.

12.4 Surficial Geology, Topography, and Runoff Patterns

According to the United States Department of Agriculture Soil Conservation Service, soils at the Site primarily consists of Canton-Urban land complex and Canton and Charlton fine sandy loams, which are described as very rocky

The center of the Site is approximately 60 feet above mean sea level. The topography across the Site generally slopes down toward the east.

13

Potential for Contaminant Volatilization into Structures [§ 1.8.3(A)(16)]

Potential for VOC contaminant volatilization into structures at the Site is unlikely since VOCs were not reported in Site soil and concentrations of total VOCs have not been identified in soil gas at the Site.

However, VHB noted methane concentrations were elevated in SVP-4 (17.7%). VHB reviewed readily available literature pertaining to vapor intrusion considerations for methane; according to *Procedures for Evaluating Potential Methane Hazard at Vapor Intrusion Sites*¹, "30% can be used as a rule-of-thumb (rather than 40%) as a normally safe methane soil gas level. A methane concentration of 30% or less in soil gas indicates that the safe methane soil gas level. A methane concentration of 30% or less in soil gas indicates that the soil gas has been well diluted; that the gas will no longer exhibit pressure; and that the gas will not pose a methane hazard." Additionally, no occupied buildings are in the immediate vicinity of the elevated methane. Therefore, methane is not considered a potential concern.

14

Potential for Entrainment by Wind and Erosion [§ 1.8.3(A)(17)]

The Site is primarily paved asphalt with areas of vegetation, including landscaped areas (i.e., athletic fields). Therefore, erosion across the Site is unlikely. During construction activities at the Site, controls such as the application of water for dust suppression (if necessary) and other erosion controls (i.e., stockpile coverings, straw waddles, etc.) are suggested to reduce the potential for entrainment by wind.

15

Protocols for Fate and Transport Models [§ 1.8.3(A)(18)]

No fate and transport modeling have been conducted for the Site. Given the contaminant types and concentrations, VHB does not believe that fate and transport modeling is necessary.

16

Sample Collection and Analysis [§ 1.8.3(A)(19)]

The results of analysis for the soil samples collected from the Site are summarized in **Table 1**, **Table 2a**, and **Table 2b**. Locations of the soil borings/test pit samples are shown on **Figure 2**. Certificates of Analysis are provided in **Appendix D**.

The results of analysis for the groundwater samples collected from the Site are summarized in **Table 3**. Locations of the monitoring wells are shown on **Figure 3**. Certificates of Analysis are provided in **Appendix E**.

The results of PID and landfill gas readings collected from the Site are summarized in **Table 4** and the locations of the soil vapor points are shown on **Figure 4**.

17

Well Construction and Development Procedures [§ 1.8.3(A)(20)]

A VHB field scientist completed boring and test pit logs during drilling and test pit activities to document soil conditions and any notable observations. The boring logs, which illustrate the monitoring well construction, can be found in **Appendix B** for hollow stem auger and direct-push borings, respectively. Monitoring wells were purged to remove a minimum of three (3) well volumes at least 72-hours prior to low flow sampling. Monitoring well construction and well development is further discussed in **Section 9.1**.

18

Management of Investigation Derived Wastes [§ 1.8.3(A)(21)]

Test pits were backfilled following the completion of each test pit. Soil cuttings were backfilled into their respective boreholes and generally replaced based on depths as feasible (i.e., subsurface soils were placed into the subsurface, etc.). Any excess cuttings which could not be placed into the borehole remained in the vicinity of the boring from which it was collected. Purge water that was generated during low flow sampling was placed into 55-gallon steel drums stored on Site pending the results of laboratory analysis. Continued groundwater sampling is anticipated due to the exceedances of the GA Objectives, therefore of the drum of containerized groundwater will remain on-Site until such time that it's full and requires off-Site at a licensed facility.

19

Quality Assurance and Quality Control Evaluation Summary [§ 1.8.3(A)(22)]

Sample jars and bottles for soil and groundwater samples were ordered directly Eurofins New England (Eurofins) of North Kingstown, Rhode Island and were delivered to VHB's office in Providence, Rhode Island. All sample bottles were labeled with the following information prior to sample collection:

- › Sample Identification;
- › Date;
- › Collection Time;
- › Project Name;
- › Preservatives (if any); and
- › Analyses requested.

During the Site investigation, protective gloves were worn during soil and groundwater sampling activities and were changed frequently to prevent cross-contamination between samples. Soil samples were collected directly from the acetate sleeves from the GeoProbe™ track rig and placed directly into the laboratory prepared sampling jars. Once sealed, the jars were immediately placed into coolers on ice. Samples remained on ice or placed into a refrigerator or frozen (if applicable) until delivered to Eurofins under standard Chain of Custody protocol for analysis.

On the days of groundwater sampling, protective gloves were changed between each monitoring well to prevent cross-contamination between samples. Prior to sampling, wells were developed via VHB's EPA-approved Standard Operation Procedures (SOPs) and allowed adequate time for recharge prior to sampling. Groundwater was pumped through a YSI multi-meter via low-flow methodologies to monitor various parameters (i.e., pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity). Once the parameters stabilized, tubing was disconnected from the YSI and samples were collected directly from the polyethylene tubing and pumped directly into the laboratory prepared sampling jars using a peristaltic pump. The VOC sample vials were inspected for sample integrity (i.e., no air bubbles) and placed directly into coolers on ice. Samples

remained on ice until delivery to Eurofins under standard Chain of Custody protocol for analysis.

20

Public Involvement Considerations [§ 1.8.3(A)(23), § 1.14.3]

Pre-Site Investigation public notice has been completed in accordance with Section 1.8.7(A) of the Remediation Regulations, which included a RIDEM-approved abutter notice mailed on August 21, 2024 sent to all abutters and other interested parties, followed by a public comment period following the mailings. No substantive comments were received from the public during the comment period. Upon receipt of a Program Letter from the RIDEM, a second public notice will be sent to all abutting property owners and other interested parties (e.g., local officials, stakeholders, etc.) associated with the Site. The notice will inform parties that the Site Investigation is completed, describe the preferred remedial alternative, and provide for an opportunity to submit comments on the technical feasibility of said preferred remedial alternative.

Remedial Alternatives [§ 1.8.4(A)]

Soil impacts include PAHs in excess of the RIDEM RDEC and I/CDEC across the Site; one location associated with TPH in exceedance of the RDEC and naphthalene in exceedance of the GA-LC; and lead via TCLP in exceedance of the GA-LC in four (4) locations.

Impacts in groundwater were identified in excess of the applicable RIDEM GA Groundwater Objectives due to lead and arsenic in exceedance of the GA Groundwater Objectives.

VHB has developed the following summary of remedial alternatives to address site impacts.

21.1 Presentation of Remedial Alternatives

21.1.1 Option 1 – No Action/Natural Attenuation

The No Action/Natural Attenuation remedial response action is most appropriate for sites where the migration of contaminants is expected to be minimal, the concentration of contaminants poses no significant risk to human health or the environment, and the substances are amenable to natural biodegradation process. Contaminants identified are generally considered to be persistent in soil with little potential to naturally attenuate. Furthermore, as portions of the Site are currently being reconstructed, a large portion of the Site is currently unpaved, thereby not meeting the standard of care to function as a cap-in-place, and some of the soil contamination identified at the Site is in landscaped areas which are not capped. Therefore, this option is not favorable for this Site.

21.1.2 Option 2 – Excavation of All Impacted Soils and Off-Site Disposal

This option would include the excavation, off-Site disposal and replacement of all contaminated soils in exceedance of all applicable state and federal regulatory criteria. Excavation is traditionally one of the simplest and most conclusive forms of site remediation. This option would result in no land use restrictions or engineered barriers; however, it must be evaluated in consideration of costs associated with excavation of impacted soils, transportation and off-Site disposal, confirmatory sampling and analysis, and purchase/placement of clean fill materials given the proposed use of the Site. Since this option would involve excavation to the maximum depths and all areas where soil impacts were identified, the additional expenses associated with this option are prohibitive. Therefore, this option is not favorable for this Site.

21.1.3 Option 3 – Limited Design Investigation, Targeted In-Situ Soil Remediation and/or Limited Soil Excavation/Off-Site Disposal, Capping, Groundwater Monitoring and Implementation of an ELUR

The RIDEM regulatory exceedances noted in this report associated with metals and PAHs can be eliminated or controlled via a combination of a Limited Designed Excavation (LDI) followed by targeted soil remediation and/or excavation, capping, and the placement of an Environmental Land Usage Restriction (ELUR) on the Site. This proposed remedial option will involve the following components:

- The area associated with the highest concentrations of total lead and lead via TCLP in the vicinity of VHB-10 from 10-12.5 feet below grade will require in-situ remediation (e.g., stabilization or treatment) and/or off-Site disposal.
- A limited site investigation (LDI) to further delineate the horizontal extent of GA-LC exceedances and hazardous lead concentrations to further assess the extent of areas which may require an impermeable cap.
- Excavation and off-Site disposal of surficial soils in exceedance of the RIDEM Method 1 DEC to accommodate for capping of landscaped areas with certified clean fill and/or geotextile fabric.
- Paved areas, new or existing, to be maintained in adequate condition to restrict access to underlying Site soil in exceedance of the RIDEM Method 1 DEC.
- Groundwater monitoring to evaluate trends of total metals in groundwater.
- Implementation of an ELUR on the property that restricts future use and which generally prohibits intrusive activities that disturb the engineered barriers and subsurface contaminated soils unless RIDEM is first notified, approves the activities, and said work is completed in accordance with a RIDEM-approved soil management plan. The ELUR will also include a requirement for the Site Owner to maintain the cap(s) at the Site and perform an annual ELUR evaluation and submit annual status reports to the Office of LRSMM.

VHB believes this combined approach is both an effective remedial alternative and one that is more economically feasible for the responsible party. VHB anticipates that ongoing construction associated with the Rogers High School will result in reconstruction of some of the areas required to be remediated, and therefore, some remediation may be implemented concurrently with the ongoing high school construction project.

21.2 Recommended Remedial Alternative

VHB recommends Remedial Option 3 because it will:

- › Eliminate direct exposure to impacted soil;
- › Eliminate the localized source area of elevated /hazardous lead;
- › Be timely and cost effective relative to other options;

- › Reduce the potential for entrainment of impacted soil within the uncapped landscaped areas via wind, erosion, and runoff.

21.3 Compliance with RIDEM Risk Management Provisions

The recommended remedial option will meet the Method 1 Standards of Risk Management outlined in Section 1.9 of the RIDEM Remediation Regulations by eliminating the exposure pathway of direct contact, eliminating a localized source area and restricting future use of the Site.

21.4 Technical Feasibility

The Remedial Alternative selected is not an innovative or unproven remedial technology. In-situ treatment of soil, excavation and disposal and land use restrictions are well-established approaches to Site management and eliminate risk to human health associated with exposure to PAHs, metals and TPH.

21.5 Compliance with Federal, State, and Local Regulations

The proposed Remedial Alternative will be designed and constructed in accordance with applicable federal, state, and local regulations.

21.6 Ability of Performing Party to Implement Remedial Alternative

The City of Newport, as the performing party, in conjunction with a construction contractor and qualified environmental professional, and in coordination with other relevant parties pertaining to the Rogers High School Project, fully anticipates being able to implement the proposed remedial alternative.



22

Certifications [§ 1.8.5(A)]

As mandated by Section 1.8.5 of the Remediation Regulations, VHB submits the following statements of certification.

Certification of Preparer

I, Fred Bevans, an employee of Vanasse Hangen Brustlin, Inc., have prepared this report and certify that it is accurate and complete to the best of my knowledge.

8/20/2025

Preparer's Signature

Date

Certification of Reviewer

I, Peter Grivers, an employee of Vanasse Hangen Brustlin, Inc., have reviewed this report and certify that it is accurate and complete to the best of my knowledge.

8/20/2025

Reviewer's Signature

Date

Certification of Owner/Operator

I, Colin Kennedy, a representative of the City of Newport, certify that the information contained in this report is a complete and accurate representation of the circumstances known about the release and the subsequent response activities to the best of my knowledge.

8/20/2025

Owner/Operator's Signature

Date

City Manager

Title



23

Progress Reports [§ 1.8.6]

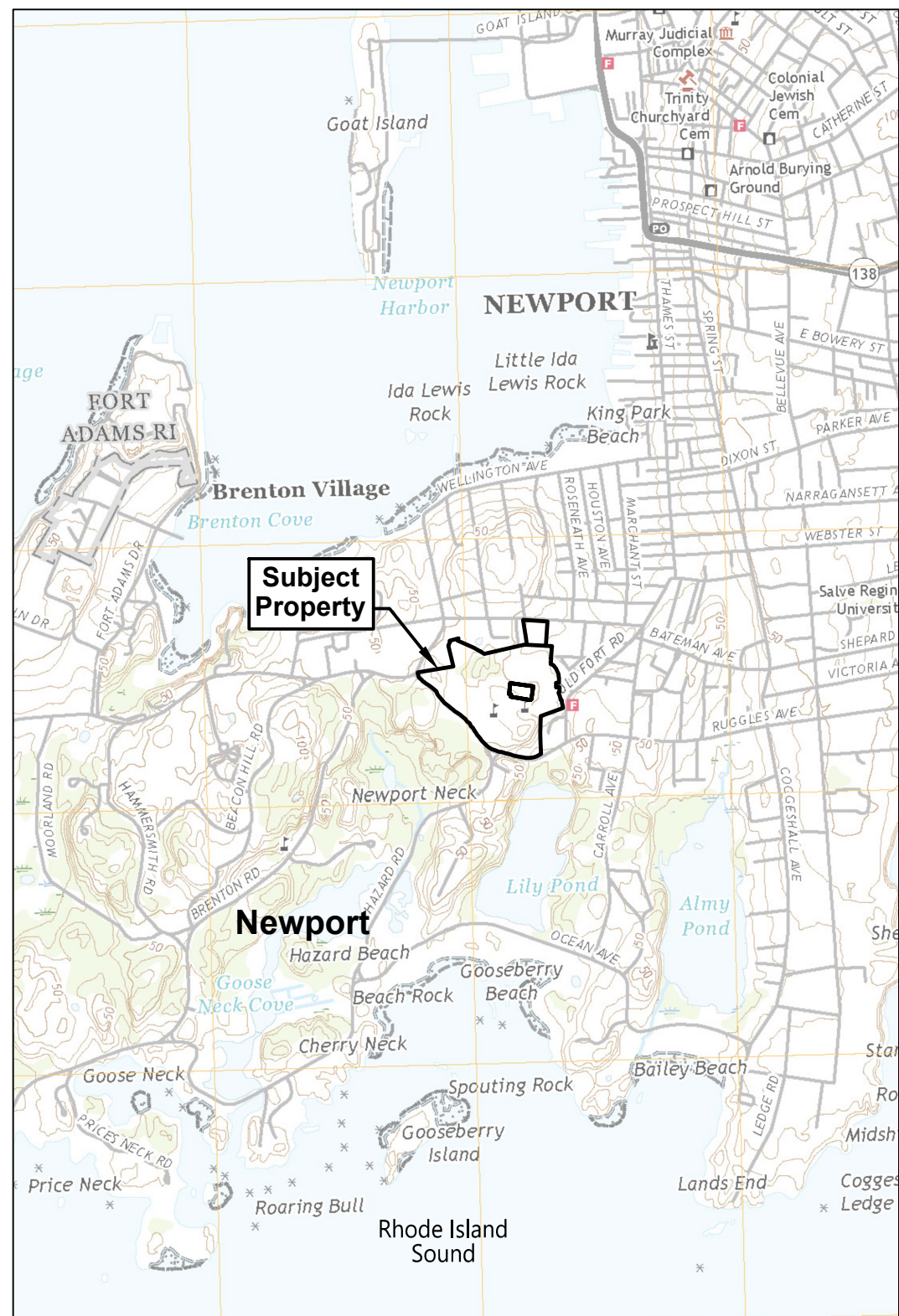
No progress reports are required for the Site at this time.

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References

- 1 Eklund, B., Sepich, J., Legrand, R., 2014, Procedures for Evaluation Potential Methane Hazard at Vapor Intrusion Sites,
https://www.provectusenvironmental.com/marketing/tech_docs/Procedures_for_Evaluating_Potential_Methane_Hazard-Eklund2014.pdf
- Hermes, O.D., L.P. Gromet and D.P. Murray, Bedrock Geologic Map of Rhode Island, 1994.
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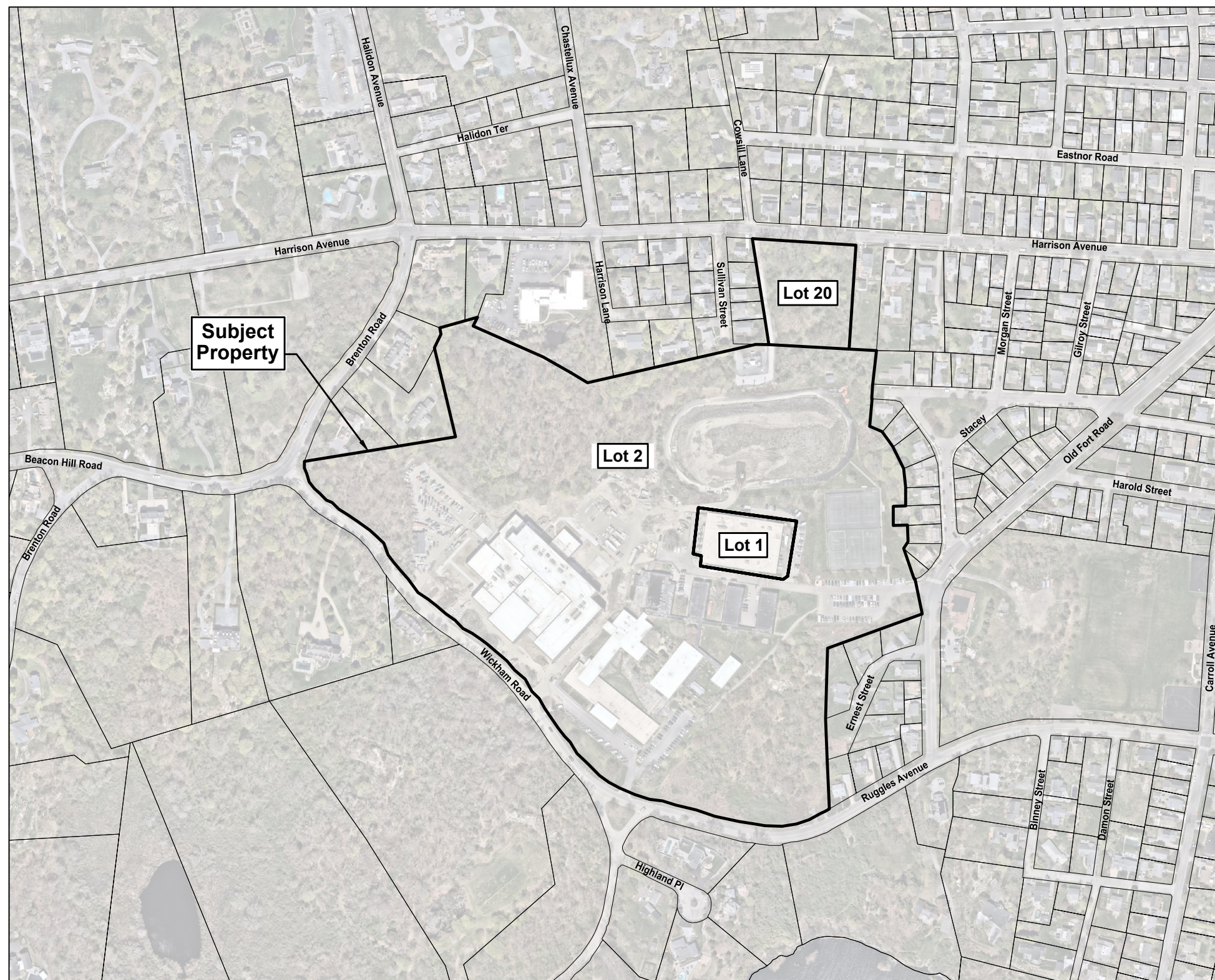
Figures



Regional Area Map



0 2000 Feet

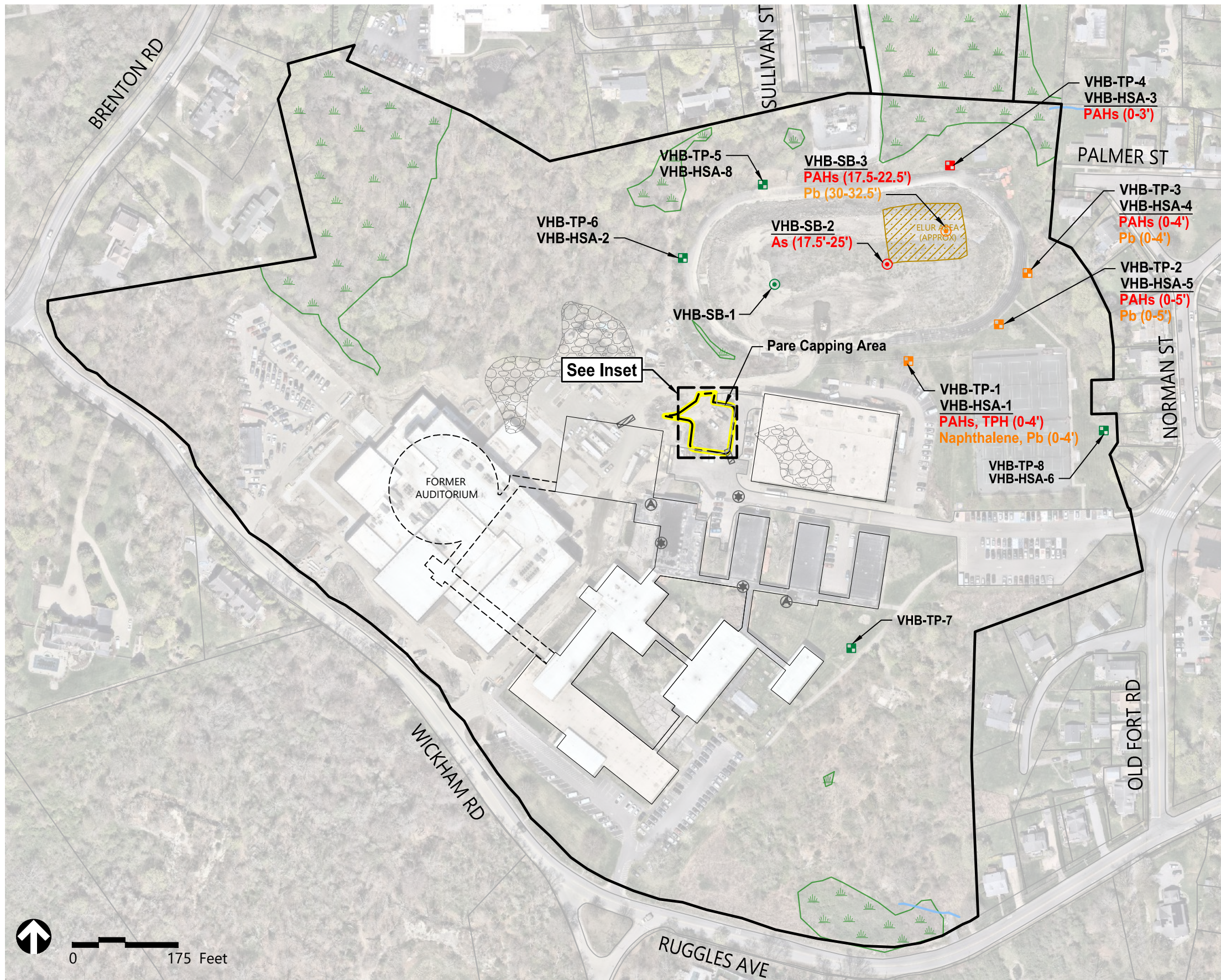


Site Location Map



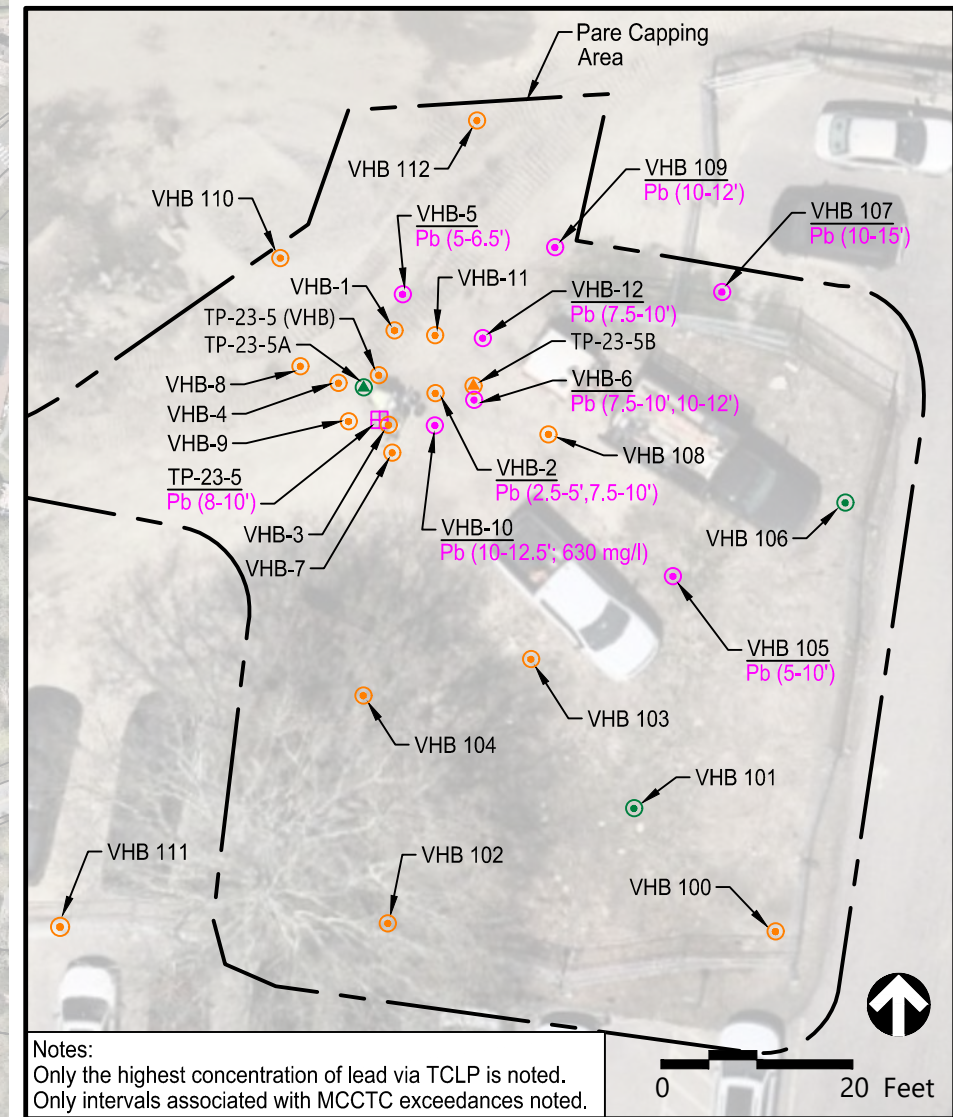
0 350 Feet





- Notable Historical Features**
- Former Military Structure (Misc./Unidentified Use)
 - Former Quarry Location
 - Former Underground Bunker (Battery O'Shea)
 - Battery O'Shea Former Anti-Aircraft Gun Location (Approx.)
 - Battery O'Shea Former Magazine/Ammunition Storage Area (Approx.)

- VHB Sampling Observations**
- Test Pit/ Soil Boring (No Exceedance of RIDEM Criteria)
 - Test Pit/ Soil Boring (Exceeds RIDEM DEC)
 - Test Pit/ Soil Boring (Exceeds GA-LC)
 - Test Pit/ Soil Boring (Exceeds EPA MCCTC)

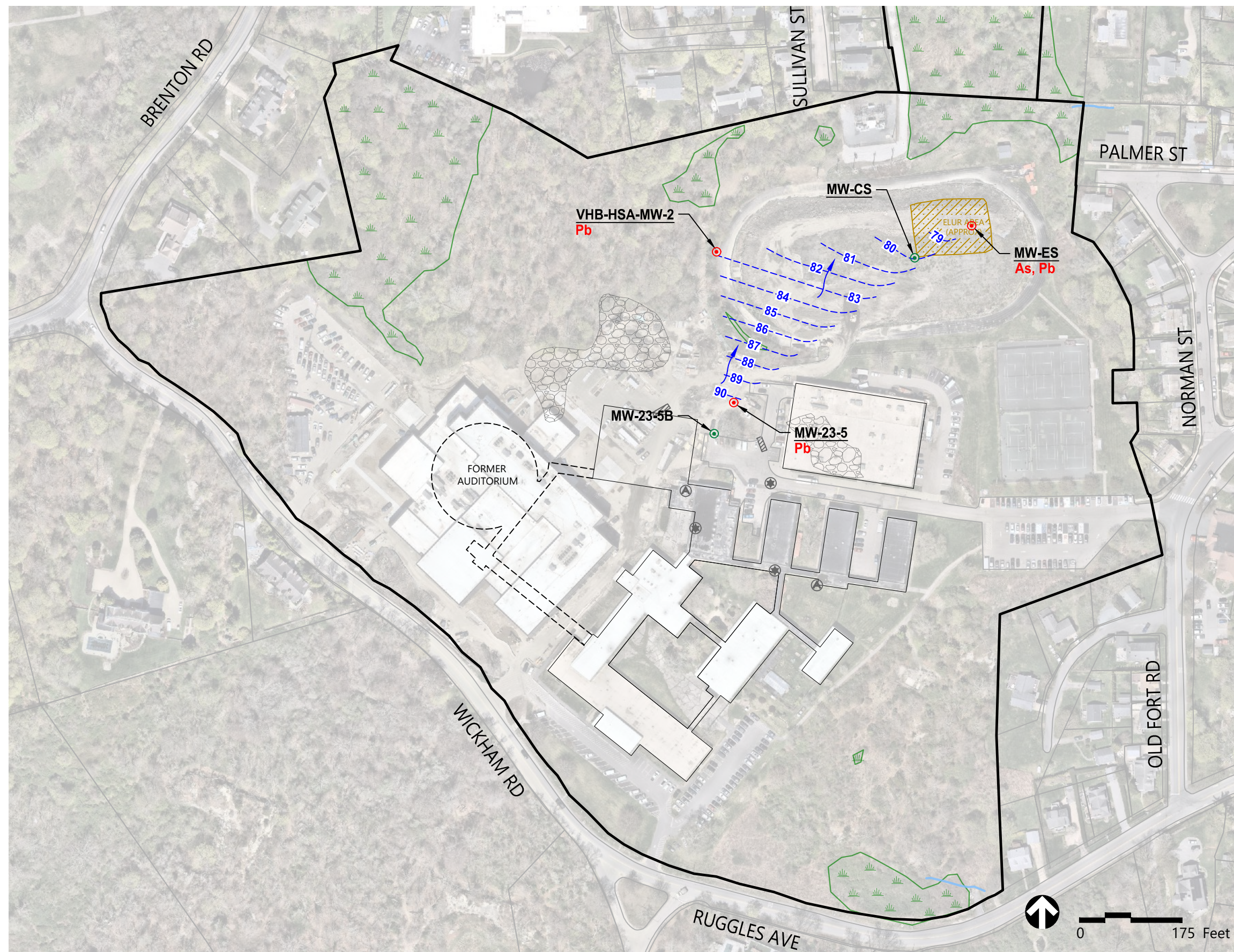


Notes:
 Only the highest concentration of lead via TCLP is noted.
 Only intervals associated with MCCTC exceedances noted.



Soil Borings, Monitoring Wells, and Surficial Sample Plan
 Rogers High School
 Newport, RI

Figure 2



Notable Historical Features

- Former Military Structure (Misc./Unidentified Use)
- Former Quarry Location
- Former Underground Bunker (Battery O'Shea)
- Battery O'Shea Former Anti-Aircraft Gun Location (Approx.)
- Battery O'Shea Former Magazine/Ammunition Storage Area (Approx.)

Sampling Observations

- Monitoring Well with No Exceedance of RIDEM Criteria (VHB, 2025)
- Monitoring Well with Exceedances (VHB, 2025)
- Groundwater Flow Contour
- Groundwater Flow Direction

Note:
Red identified monitoring wells exceed RIDEM GA-GO.








Monitoring Well Locations and Groundwater Flow Plan
Rogers High School
Newport, RI


Figure 3



Notable Historical Features

-  Former Military Structure (Misc./Unidentified Use)
-  Former Quarry Location
-  Former Underground Bunker (Battery O'Shea)
-  Battery O'Shea Former Anti-Aircraft Gun Location (Approx.)
-  Battery O'Shea Former Magazine/Ammunition Storage Area (Approx.)

Sampling Observations

-  Sampled Soil Gas Point (VHB, 2025)

Note:
Only highest concentration of landfill gases shown.



Tables

Table 1
Test Pit, Soil Boring, Hollow-Stem Auger Soil Data
RHS - Former Harrison Avenue Dump
Newport, RI

Table with columns: Sample ID, Reporting Units, Direct Exposure Criteria Residential, Direct Exposure Criteria Industrial, GA Leachability Criteria, EPA MCCTC, and 15 VHB sampling locations (VHB-TP-1-0'-4', VHB-TP-2-0'-5', VHB-TP-3-0'-4', VHB-HSA-4-5'-7', VHB-TP-4-0'-3', VHB-HSA-3-5'-7', VHB-TP-5-0'-6', VHB-TP-6-0'-4', VHB-HSA-2-5'-7', VHB-TP-7-0'-4', VHB-TP-8-0'-6', VHB-SB-1-17.5'-20', VHB-SB-2-17.5'-20', VHB-SB-2-22.5'-25', VHB-SB-3-17.5'-20', VHB-SB-3-30'-32.5'). Rows include Volatiles by 8260C (e.g., 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane) and Semivolatiles by 8270D (e.g., 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene).

Table 1
Test Pit, Soil Boring, Hollow-Stem Auger Soil Data
RHS - Former Harrison Avenue Dump
Newport, RI

Table with columns: Sample ID, Reporting Units, Direct Exposure Criteria Residential, Direct Exposure Criteria Industrial, GA Leachability Criteria, EPA MCCTC, and 18 VHB-TP and VHB-HSA columns. Rows include various chemical compounds like Benzofluoranthene, Benzo[a,h]perylene, Benzo[k]fluoranthene, Benzoic acid, Benzyl alcohol, Bis(2-chloroisopropyl) ether, Bis(2-chloroethoxy)methane, Bis(2-chloroethyl)ether, Bis(2-ethylhexyl) phthalate, Butyl benzyl phthalate, Carbazole, Chrysene, Dibenz[a,h]anthracene, Dibenzofuran, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Indeno[1,2,3-cd]pyrene, Isophorone, Naphthalene, Nitrobenzene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, N-Nitrosodiphenylamine, Pentachloronitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, and Pyridine. It also includes sections for GC Semivolatiles by 8081B, 8082A, 8100, 8161A, Metals by 6010D, and 7471B.

Notes:
NA - Not Applicable
NE- Not Established
mg/kg - milligrams per kilogram
ug/kg - micrograms per kilogram
Bolded results identify values that meet or exceed the laboratory's reporting limit.
Green highlighted results identify values that meet or exceed RIDEM's Method 1 Industrial/Commercial Direct Exposure Criteria
Yellow highlighted results identify values that meet or exceed RIDEM's Method 1 Residential Direct Exposure Criteria
Dark Blue results identify values that meet or exceed RIDEM's Method 1 GA Groundwater Objective.
F2 F1 - MS and/or MSD recovery exceeds control limits.
*laboratory's reporting limit exceeds one or more regulatory criteria

Location		Regulatory Criteria				TP-23-5					VHB-1					VHB-2					VHB-3					
Sample ID	Reporting Units	Direct Exposure Criteria Residential	Direct Exposure Criteria Industrial/Commercial	GA Leachability Criteria	EPA MCCTC	TP23-5-0'-2.5'	TP23-5-2.5'-5'	TP23-5-5'-7.5'	TP23-5-7.5'-10'	TP23-5-10'-12.5'	VHB-1-0'-2.5'	VHB-1-2.5'-5'	VHB-1-5'-7.5'	VHB-1-7.5'-10'	VHB-1-10'-12.5'	VHB-2-0'-2.5'	VHB-2-2.5'-5'	VHB-2-5'-7.5'	VHB-2-7.5'-10'	VHB-2-10'-12.5'	VHB-3-0'-2.5'	VHB-3-2.5'-5'	VHB-3-5'-7.5'	VHB-3-7.5'-10'	VHB-3-10'-12.5'	
Sample Collection Date						10/09/2024 09:20	10/09/2024 09:20	10/09/2024 09:30	10/09/2024 09:30	10/09/2024 09:30	10/09/2024 09:50	10/09/2024 09:50	10/09/2024 09:55	10/09/2024 09:55	10/09/2024 10:30	10/09/2024 10:30	10/09/2024 10:35	10/09/2024 10:35	10/09/2024 10:40	10/09/2024 10:15	10/09/2024 10:15	10/09/2024 10:20	10/09/2024 10:20	10/09/2024 10:30		
Metals by 6010D																										
Lead	mg/kg	150	500	NE		176	470	353	459	560	1020	1320	2060	1400	310	319	7940	709	857	823	98.7	197	1070	458	361	
Metals by 6010D TCLP																										
Lead	mg/l			0.04	5	0.306	0.319	1.38	1.10	0.887	1.14	1.48	4.34	2.41	1.14	0.230	22.6	0.593	30.4	0.764		1.08	0.0388	0.108	1.63	

Location		Regulatory Criteria				VHB-4					VHB-5			VHB-6					VHB-7						
Sample ID	Reporting Units	Direct Exposure Criteria Residential	Direct Exposure Criteria Industrial/Commercial	GA Leachability Criteria	EPA MCCTC	VHB-4-0'-2.5'	VHB-4-2.5'-5'	VHB-4-5'-7.5'	VHB-4-7.5'-10'	VHB-4-10'-12.5'	VHB-5-0'-2.5'	VHB-5-2.5'-5'	VHB-5-5'-6.5'	VHB-6-0'-2.5'	VHB-6-2.5'-5'	VHB-6-5'-7.5'	VHB-6-7.5'-10'	VHB-6-10'-12.5'	VHB-7-0'-2.5'	VHB-7-2.5'-5'	VHB-7-5'-7.5'	VHB-7-7.5'-10'	VHB-7-10'-12.5'		
Sample Collection Date						10/09/2024 10:40	10/09/2024 10:40	10/09/2024 10:45	10/09/2024 10:45	10/09/2024 10:50	10/09/2024 11:00	10/09/2024 11:00	10/09/2024 11:05	10/09/2024 11:10	10/09/2024 11:10	10/09/2024 11:15	10/09/2024 11:15	10/09/2024 11:20	10/09/2024 11:30	10/09/2024 11:30	10/09/2024 11:35	10/09/2024 11:35	10/09/2024 11:40		
Metals by 6010D																									
Lead	mg/kg	150	500	NE		289	3120	1000	330	143	906	3360	1760	292	931	681	1690	5910	136	95.8	1400	4180	4800		
Metals by 6010D TCLP																									
Lead	mg/l			0.04	5	0.223	0.312	0.404	3.43	1.66	1.02	2.59	20.5	1.24	0.593	0.416	15.7	7.30	0.207		0.754	4.72	0.909		

Location		Regulatory Criteria				VHB-8					VHB-9					VHB-10					VHB-11					
Sample ID	Reporting Units	Direct Exposure Criteria Residential	Direct Exposure Criteria Industrial/Commercial	GA Leachability Criteria	EPA MCCTC	VHB-8-0'-2.5'	VHB-8-2.5'-5'	VHB-8-5'-7.5'	VHB-8-7.5'-10'	VHB-8-10'-12.5'	VHB-9-0'-2.5'	VHB-9-2.5'-5'	VHB-9-5'-7.5'	VHB-9-7.5'-10'	VHB-9-10'-12.5'	VHB-10-0'-2.5'	VHB-10-2.5'-5'	VHB-10-5'-7.5'	VHB-10-7.5'-10'	VHB-10-10'-12.5'	VHB-11-0'-2.5'	VHB-11-2.5'-5'	VHB-11-5'-7.5'	VHB-11-7.5'-10'	VHB-11-10'-12.5'	
Sample Collection Date						10/09/2024 11:50	10/09/2024 11:50	10/09/2024 11:55	10/09/2024 11:55	10/09/2024 12:00	10/09/2024 12:10	10/09/2024 12:10	10/09/2024 12:10	10/09/2024 12:10	10/09/2024 12:15	10/09/2024 12:25	10/09/2024 12:25	10/09/2024 12:30	10/09/2024 12:30	10/09/2024 12:35	10/09/2024 12:40	10/09/2024 12:40	10/09/2024 12:45	10/09/2024 12:45	10/09/2024 12:50	
Metals by 6010D																										
Lead	mg/kg	150	500	NE		339	1190	324	3330	733	103	261	352	525	778	194	286	387	2080	32700	172	773	735	1940	797	
Metals by 6010D TCLP																										
Lead	mg/l			0.04	5	0.0321	0.104	0.610	0.563	1.69	0.232	0.882	0.464	1.90	0.533	0.182	0.826	0.274	1.29	630	0.298	0.482	0.0727	0.854	0.0421	

Location		Regulatory Criteria				VHB-12				
Sample ID	Reporting Units	Direct Exposure Criteria Residential	Direct Exposure Criteria Industrial/Commercial	GA Leachability Criteria	EPA MCCTC	VHB-12-0'-2.5'	VHB-12-2.5'-5'	VHB-12-5'-7.5'	VHB-12-7.5'-10'	VHB-12-10'-12.5'
Sample Collection Date						10/09/2024 13:15	10/09/2024 13:15	10/09/2024 13:20	10/09/2024 13:20	10/09/2024 13:25
Metals by 6010D										
Lead	mg/kg	150	500	NE		483	996	560	241	76.1
Metals by 6010D TCLP										
Lead	mg/l			0.04	5	5.25F1	0.283	0.9973	9.88	

Location		Regulatory Criteria				VHB 100			VHB 101			VHB 102			VHB 103			VHB 104			VHB 105			VHB 106		
Sample ID	Reporting Units	Direct Exposure Criteria Residential	Direct Exposure Criteria Industrial/Commercial	GA Leachability Criteria	EPA MCCTC	VHB 100 (0-5')	VHB 100 (5-10')	VHB 100 (10-15')	VHB 101 (0-5')	VHB 101 (5-10')	VHB 101 (10-15')	VHB 102 (0-5')	VHB 102 (5-10')	VHB 102 (10-15')	VHB 103 (0-5')	VHB 103 (5-10')	VHB 103 (10-15')	VHB 104 (0-5')	VHB 104 (5-10')	VHB 104 (10-15')	VHB 105 (0-5')	VHB 105 (5-10')	VHB 105 (10-15')	VHB 106 (0-5')	VHB 106 (5-10')	VHB 106 (10-15')
Sample Collection Date						04/17/2025 08:50	04/17/2025 08:55	04/17/2025 09:05	04/17/2025 09:10	04/17/2025 09:17	04/17/2025 09:22	04/17/2025 09:37	04/17/2025 09:42	04/17/2025 09:48	04/17/2025 09:59	04/17/2025 10:04	04/17/2025 10:13	04/17/2025 10:15	04/17/2025 10:30	04/17/2025 10:35	04/17/2025 10:45	04/17/2025 10:52	04/17/2025 10:58	04/17/2025 11:06	04/17/2025 11:12	04/17/2025 11:22
Metals by 6010D																										
Lead	mg/kg	150	500	NE		437	36.4	423	82.9	70.3	21.1F1	12.8	186	114	18.3	411	149	56.2	133	88.4	77.1	242	391	78.4	72.9	84.1
Metals by 6010D TCLP																										
Lead	mg/l			0.04	5	4.34		2.16					0.743	0.0913		0.206	1.35		1.60			7.13	0.845			

Location		Regulatory Criteria				VHB 107			VHB 108			VHB 109			VHB 110			VHB 111			VHB 112			
Sample ID	Reporting Units	Direct Exposure Criteria Residential	Direct Exposure Criteria Industrial/Commercial	GA Leachability Criteria	EPA MCCTC	VHB 107 (0-5')	VHB 107 (5-10')	VHB 107 (10-15')	VHB 108 (0-5')	VHB 108 (5-10')	VHB 108 (10-15')	VHB 109 (0-5')	VHB 109 (5-10')	VHB 109 (10-12')	VHB 110 (0-5')	VHB 110 (5-10')	VHB 110 (10-12.5')	VHB 111 (0-5')	VHB 111 (5-10')	VHB 111 (10-15')	VHB 112 (0-5')	VHB 112 (5-10')	VHB 112 (10-12')	
Sample Collection Date						04/17/2025 11:34	04/17/2025 11:43	04/17/2025 11:50	04/17/2025 12:00	04/17/2025 12:06	04/17/2025 12:19	04/17/2025 12:31	04/17/2025 12:45	04/17/2025 12:53	04/17/2025 13:00	04/17/2025 13:07	04/17/2025 13:20	04/17/2025 13:45	04/17/2025 13:49	04/17/2025 14:13	04/17/2025 15:16	04/17/2025 15:20	04/17/2025 15:05	
Metals by 6010D																								
Lead	mg/kg	150	500	NE		63.2	343	1010	247	26.8	123	63.7	1900	2190	1390	281	73.3	75.6	128	60.6	62.4	289	329	
Metals by 6010D TCLP																								
Lead	mg/l			0.04	5		1.14	13.1	1.87		1.56		0.809	39.2	0.492	0.103			0.263		0.417	1.16		

Notes:
 NA - Not Applicable
 NE- Not Established
 mg/kg - milligrams per kilogram
 ug/kg - micrograms per kilogram
 ug/l - micrograms per liter
Bolded results identify values that meet or exceed the laboratory's reporting limit.
 Indicates values that meet or exceed RIDEM's Method 1 Industrial/Commercial Direct Exposure Criteria
 Indicates values that meet or exceed RIDEM's Method 1 Residential Direct Exposure Criteria
 Indicates values that meet or exceed RIDEM's Method 1 GA Leachability Criteria.
 Indicates values that meet or exceed EPA MCCTC standard as well as GA Leachability Criteria
 Indicates values that meet or exceed the RIDEM Upper Concentration Limits (UCL) of 10,000 for any Hazardous Substance and 30,000 for TPH.
 F2 F1 - MS and/or MSD recovery exceeds control limits.
 *laboratory's reporting limit exceeds one or more regulatory criteria
 B - Compound was found in the blank and sample.

Location	Reporting Units	Regulatory Criteria			TP23			VHB-1			VHB-2			VHB-3			VHB-4		
		Direct Exposure Criteria Residential	Direct Exposure Criteria Industrial	GA Leachability Criteria	TP23-5'-2.5'	TP23-5.25'-5'	TP23-5.5'-7.5'	VHB-1-0'-2.5'	VHB-1-2.5'-5'	VHB-1-5'-7.5'	VHB-2-0'-2.5'	VHB-2-2.5'-5'	VHB-2-5'-7.5'	VHB-3-0'-2.5'	VHB-3-2.5'-5'	VHB-3-5'-7.5'	VHB-4-0'-2.5'	VHB-4-2.5'-5'	VHB-4-5'-7.5'
					10/09/2024 09:20	10/09/2024 09:20	10/09/2024 09:30	10/09/2024 09:50	10/09/2024 09:50	10/09/2024 09:55	10/09/2024 10:30	10/09/2024 10:30	10/09/2024 10:35	10/09/2024 10:15	10/09/2024 10:15	10/09/2024 10:20	10/09/2024 10:40	10/09/2024 10:40	10/09/2024 10:45
SemiVolatiles by 8270D_LL_PAH																			
1-Methylnaphthalene	ug/kg	NE	NE	NE	< 19.1	< 39.7	< 19.8	< 40.9	< 102	< 40.2	22.0	< 20.7	< 20.2	76.1	< 20.4	< 20.7	< 40.6	< 19.9	< 20.4
2-Methylnaphthalene	ug/kg	123,000	10,000,000	NE	< 19.1	< 39.7	< 19.8	< 40.9	< 102	< 40.2	< 21.2	< 20.7	< 20.2	51.3	< 20.4	< 20.7	< 40.6	< 19.9	< 20.4
Acenaphthene	ug/kg	43,000	10,000,000	NE	93.4	< 39.7	< 19.8	< 40.9	< 102	< 40.2	90.5	< 20.7	< 20.2	231	< 20.4	< 20.7	< 40.6	< 19.9	< 20.4
Acenaphthylene	ug/kg	23,000	10,000,000	NE	< 19.1	< 39.7	< 19.8	< 40.9	< 102	< 40.2	46.4	< 20.7	< 20.2	76.3	< 20.4	< 20.7	< 40.6	32.3	< 20.4
Anthracene	ug/kg	35,000	10,000,000	NE	200	< 39.7	< 19.8	82.1	< 102	< 40.2	302	< 20.7	< 20.2	816	< 20.4	< 20.7	< 48.1	< 19.9	< 20.4
Benzo(a)anthracene	ug/kg	900	7,800	NE	589	< 39.7	39.4	347	< 102	< 40.2	752	< 20.7	54.8	1910	73.9	46.8	187	69.5	< 20.4
Benzo(a)pyrene	ug/kg	400	800	240000	584	49.7	42.4	388	< 102	< 40.2	724	< 20.7	59.2	1850	70.0	45.8	186	119	< 20.4
Benzo(b)fluoranthene	ug/kg	900	7,800	NE	554	97.2	58.9	437	< 102	< 40.2	704	< 20.7	61.4	2060	76.5	45.6	218	123	< 20.4
Benzo(b,h)perylene	ug/kg	800	10,000,000	NE	420	83.2	48.8	277	< 102	< 40.2	66.1	< 20.7	47.7	1060	58.5	30.1	137	125	< 20.4
Benzo(k)fluoranthene	ug/kg	900	78,000	NE	565	56.4	43.0	308	< 102	< 40.2	585	< 20.7	60.7	1110	76.2	42.4	160	124	< 20.4
Bis(2-ethylhexyl) phthalate	ug/kg	46,000	410,000	NE	< 19.1	< 39.7	< 19.8	< 40.9	< 102	< 40.2	48.9	< 20.7	< 20.2	28.4	< 20.4	< 20.7	< 40.6	< 19.9	< 20.4
Chrysene	ug/kg	400	780,000	NE	643	99.7	71.1	408	< 102	< 40.2	857	< 20.7	69.9	2110	87.9	54.3	217	104	< 20.4
Dibenz(a,h)anthracene	ug/kg	400	800	NE	135	< 39.7	< 19.8	86.8	< 102	< 40.2	147	< 20.7	< 20.2	388	22.0	< 20.7	49.2	35.8	< 20.4
Fluoranthene	ug/kg	20,000	10,000,000	NE	1350	54.2	78.9	682	< 102	< 40.2	1900	< 20.7	94.4	4720	84.1	63.7	270	57.8	< 20.4
Fluorene	ug/kg	28,000	10,000,000	NE	58.5	< 39.7	< 19.8	< 40.9	< 102	< 40.2	83.6	< 20.7	< 20.2	223	< 20.4	< 20.7	< 40.6	< 19.9	< 20.4
Indeno(1,2,3-cd)pyrene	ug/kg	900	7,800	NE	355	64.7	37.1	239	< 102	< 40.2	45.5	< 20.7	42.0	1010	50.0	27.4	118	108	< 20.4
Naphthalene	ug/kg	54,000	10,000,000	800	< 19.1	< 39.7	< 19.8	< 40.9	< 102	< 40.2	< 21.2	< 20.7	< 20.2	47.6	< 20.4	< 20.7	< 40.6	33.5	< 20.4
Phenanthrene	ug/kg	40,000	10,000,000	NE	949	85.9	70.7	332	< 102	< 40.2	1590	< 20.7	66.8	3250	45.9	43.4	170	36.0	< 20.4
Pyrene	ug/kg	13,000	10,000,000	NE	1780	53.3	70.0	762	< 102	< 40.2	1930	< 20.7	137	4360	110	92.8	449	92.2	< 20.4

Notes:

NA - Not Applicable

NE - Not Established

mg/kg - milligrams per kilogram

ug/kg - micrograms per kilogram

ug/l - micrograms per liter

Bolded results identify values that meet or exceed the laboratory's reporting limit.

Green highlighted results identify values that meet or exceed RIDEM's Method 1 Industrial/Commercial Direct Exposure Criteria

Yellow highlighted results identify values that meet or exceed RIDEM's Method 1 Residential Direct Exposure Criteria

Dark Blue results identify values that meet or exceed RIDEM's Method 1 GA Leachability Criteria.

F2 F1 - MS and/or MSD recovery exceeds control limits.

*laboratory's reporting limit exceeds one or more regulatory criteria

B - Compound was found in the blank and sample.

Table 3
Groundwater Data
Rogers High School – Former Harrison Avenue Dump
Newport, RI

#16108.10

Sample ID	Reporting Units	GA Groundwater Objectives	VHB-CS	VHB-ES		VHB-HSA-MW-2		MW-23-5	MW-23-5B
			10/15/2024 10:00	10/15/2024 12:00	4/29/2025 11:10	10/15/2024 13:30	04/29/2025 12:05	10/15/2024 15:45	4/29/2025 9:30
Volatiles by 8260D									
1,1,1,2-Tetrachloroethane	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,1,1-Trichloroethane	ug/l	200	< 1.00	< 10.0		< 1.00		< 1.00	
1,1,2,2-Tetrachloroethane	ug/l	NE	< 0.500	< 5.00		< 0.500		< 0.500	
1,1,2-Trichloroethane	ug/l	5	< 1.00	< 10.0*		< 1.00		< 1.00	
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,1-Dichloroethane	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,1-Dichloroethene	ug/l	7	< 1.00	< 10.0*		< 1.00		< 1.00	
1,1-Dichloropropene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,2,3-Trichlorobenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,2,3-Trichloropropane	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,2,4-Trichlorobenzene	ug/l	70	< 1.00	< 10.0		< 1.00		< 1.00	
1,2,4-Trimethylbenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,2-Dibromo-3-Chloropropane	ug/l	0.2	< 2.00*	< 20.0*		< 2.00*		< 2.00*	
1,2-Dibromoethane (EDB)	ug/l	0.05	< 0.500*	< 5.00*		< 0.500*		< 0.500*	
1,2-Dichlorobenzene	ug/l	600	< 1.00	< 10.0		< 1.00		< 1.00	
1,2-Dichloroethane	ug/l	5	< 1.00	< 10.0*		< 1.00		< 1.00	
1,2-Dichloropropane	ug/l	5	< 1.00	< 10.0*		< 1.00		< 1.00	
1,3,5-Trichlorobenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,3,5-Trimethylbenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,3-Dichlorobenzene	ug/l	600	< 1.00	< 10.0		< 1.00		< 1.00	
1,3-Dichloropropane	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
1,4-Dichlorobenzene	ug/l	75	< 1.00	< 10.0		< 1.00		< 1.00	
1,4-Dioxane	ug/l	NE	< 50.0	< 500		< 50.0		< 50.0	
2,2-Dichloropropane	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
2-Butanone (MEK)	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
2-Chlorotoluene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
2-Hexanone (MBK)	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
4-Chlorotoluene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
4-Isopropyltoluene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
4-Methyl-2-pentanone (MIBK)	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
Acetone	ug/l	NE	< 10.0	< 100		< 10.0		< 10.0	
Acrylonitrile	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Benzene	ug/l	5	< 1.00	< 10.0*		< 1.00		< 1.00	
Bromobenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Bromochloromethane	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Bromodichloromethane	ug/l	80	< 0.500	< 5.00		< 0.500		< 0.500	
Bromoform	ug/l	80	< 1.00	< 10.0		< 1.00		< 1.00	
Bromomethane	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
Carbon disulfide	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
Carbon tetrachloride	ug/l	5	< 1.00	< 10.0*		< 1.00		< 1.00	
Chlorobenzene	ug/l	100	< 1.00	< 10.0		< 1.00		< 1.00	
Chloroethane	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
Chloroform	ug/l	80	< 1.00	< 10.0		< 1.00		< 1.00	
Chloromethane	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
cis-1,2-Dichloroethene	ug/l	70	< 1.00	< 10.0		< 1.00		< 1.00	
cis-1,3-Dichloropropene	ug/l	NE	< 0.500	< 5.00		< 0.500		< 0.500	
Dibromochloromethane	ug/l	80	< 0.500	< 5.00		< 0.500		< 0.500	
Dibromomethane	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Dichlorodifluoromethane (Freon 12)	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
di-Isopropyl ether	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Ethanol	ug/l	NE	< 200	< 2000		< 200		< 200	
Ethyl ether	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Ethyl tert-butyl ether	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Ethylbenzene	ug/l	700	< 1.00	< 10.0		< 1.00		< 1.00	
Hexachlorobutadiene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Isopropylbenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
m,p-Xylene	ug/l	10000	< 1.00	< 10.0		< 1.00		< 1.00	
Methyl tert-butyl ether	ug/l	40	< 1.00	< 10.0		< 1.00		< 1.00	
Methylene Chloride	ug/l	5	< 2.00	< 20.0*		< 2.00		< 2.00	
Naphthalene	ug/l	100	< 2.00	< 20.0		< 2.00		< 2.00	
n-Butylbenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
N-Propylbenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
o-Xylene	ug/l	10000	< 1.00	< 10.0		< 1.00		< 1.00	
sec-Butylbenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Styrene	ug/l	100	< 1.00	< 10.0		< 1.00		< 1.00	
Tert-amyl methyl ether	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
tert-Butanol	ug/l	NE	< 10.0	< 100		< 10.0		< 10.0	
tert-Butylbenzene	ug/l	NE	< 1.00	< 10.0		< 1.00		< 1.00	
Tetrachloroethene	ug/l	5	< 1.00	< 10.0*		< 1.00		< 1.00	
Tetrahydrofuran	ug/l	NE	< 2.00	< 20.0		< 2.00		< 2.00	
Toluene	ug/l	1000	< 1.00	104		< 1.00		< 1.00	

Table 3
Groundwater Data
Rogers High School – Former Harrison Avenue Dump
Newport, RI

#16108.10

Sample ID	Reporting Units	GA Groundwater Objectives	VHB-CS	VHB-ES		VHB-HSA-MW-2		MW-23-5	MW-23-5B
			10/15/2024 10:00	10/15/2024 12:00	4/29/2025 11:10	10/15/2024 13:30	04/29/2025 12:05	10/15/2024 15:45	4/29/2025 9:30
trans-1,2-Dichloroethene	ug/l	100	< 1.00	< 10.0		< 1.00		< 1.00	
trans-1,3-Dichloropropene	ug/l	NE	< 0.500	< 5.00		< 0.500		< 0.500	
trans-1,4-Dichloro-2-butene	ug/l	NE	< 5.00	< 5.00		< 5.00		< 5.00	
Trichloroethene	ug/l	5	< 1.00	< 1.00		< 1.00		< 1.00	
Trichlorofluoromethane (Freon 11)	ug/l	NE	< 1.00	< 1.00		< 1.00		< 1.00	
Vinyl chloride	ug/l	2	< 1.00	< 1.00		< 1.00		< 1.00	
Semivolatiles by 8270E									
1,2,4,5-Tetrachlorobenzene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
1,2,4-Trichlorobenzene	ug/l	70	< 5.95	< 5.68		< 5.00		< 5.00	
1,2-Dichlorobenzene	ug/l	600	< 5.95	< 5.68		< 5.00		< 5.00	
1,3-Dichlorobenzene	ug/l	600	< 5.95	< 5.68		< 5.00		< 5.00	
1,4-Dichlorobenzene	ug/l	75	< 5.95	< 5.68		< 5.00		< 5.00	
1-Methylnaphthalene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2,4,5-Trichlorophenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2,4,6-Trichlorophenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2,4-Dichlorophenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2,4-Dimethylphenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2,4-Dinitrophenol	ug/l	NE	< 23.8	< 22.7		< 20.0		< 20.0	
2,4-Dinitrotoluene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2,6-Dinitrotoluene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2-Chloronaphthalene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2-Chlorophenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2-Methylnaphthalene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2-Methylphenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2-Nitroaniline	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
2-Nitrophenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
3 & 4 Methylphenol	ug/l	NE	< 11.9	< 11.4		< 10.0		< 10.0	
3,3'-Dichlorobenzidine	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
3-Nitroaniline	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
4,6-Dinitro-2-methylphenol	ug/l	NE	< 11.9	< 11.4		< 10.0		< 10.0	
4-Bromophenyl phenyl ether	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
4-Chloro-3-methylphenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
4-Chloroaniline	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
4-Chlorophenyl phenyl ether	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
4-Nitroaniline	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
4-Nitrophenol	ug/l	NE	< 23.8	< 22.7		< 20.0		< 20.0	
Acenaphthene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Acenaphthylene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Aniline	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Anthracene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Azobenzene/Diphenyldiazene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Benzidine	ug/l	NE	< 23.8	< 22.7		< 20.0		< 20.0	
Benzo[a]anthracene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Benzo[a]pyrene	ug/l	0.2	< 5.95*	< 5.68*		< 5.00*		< 5.00*	
Benzo[b]fluoranthene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Benzo[g,h,i]perylene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Benzo[k]fluoranthene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Benzoic acid	ug/l	NE	< 11.9	< 11.4		< 10.0		< 10.0	
Benzyl alcohol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
bis (2-chloroisopropyl) ether	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Bis(2-chloroethoxy)methane	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Bis(2-chloroethoxy)ether	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Bis(2-ethylhexyl) phthalate	ug/l	NE	< 11.9	< 11.4		< 10.0		< 10.0	
Butyl benzyl phthalate	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Carbazole	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Chrysene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Dibenz[a,h]anthracene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Dibenzofuran	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Diethyl phthalate	ug/l	6	< 5.95	< 5.68		< 5.00		< 5.00	
Dimethyl phthalate	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Di-n-butyl phthalate	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Di-n-octyl phthalate	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Fluoranthene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Fluorene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Hexachlorobenzene	ug/l	1	< 5.95*	< 5.68*		< 5.00*		< 5.00*	
Hexachlorobutadiene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Hexachlorocyclopentadiene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Hexachloroethane	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Indeno[1,2,3-cd]pyrene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Isophorone	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Naphthalene	ug/l	100	< 5.95	< 5.68		< 5.00		< 5.00	
Nitrobenzene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	

Table 3
Groundwater Data
Rogers High School – Former Harrison Avenue Dump
Newport, RI

#16108.10

Sample ID	Reporting Units	GA Groundwater Objectives	VHB-CS	VHB-ES		VHB-HSA-MW-2		MW-23-5	MW-23-5B
			10/15/2024 10:00	10/15/2024 12:00	4/29/2025 11:10	10/15/2024 13:30	04/29/2025 12:05	10/15/2024 15:45	4/29/2025 9:30
N-Nitrosodimethylamine	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
N-Nitrosodi-n-propylamine	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
N-Nitrosodiphenylamine	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Pentachloronitrobenzene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Pentachlorophenol	ug/l	1	< 11.9*	< 11.4*		< 10.0*		< 10.0*	
Phenanthrene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Phenol	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Pyrene	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
Pyridine	ug/l	NE	< 5.95	< 5.68		< 5.00		< 5.00	
GC Semivolatiles by 8081B									
4,4'-DDD	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
4,4'-DDE	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
4,4'-DDT	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
Alachlor	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
Aldrin	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
alpha-BHC	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
beta-BHC	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
cis-Chlordane	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
delta-BHC	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
Dieldrin	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
Endosulfan I	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
Endosulfan II	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
Endosulfan sulfate	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
Endrin	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
Endrin aldehyde	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
Endrin ketone	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
gamma-BHC (Lindane)	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
Heptachlor	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
Heptachlor epoxide	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
Methoxychlor	ug/l	NE	< 0.0800	< 0.0909		< 0.0800		< 0.0800	
Toxaphene	ug/l	NE	< 0.800	< 0.909		< 0.800		< 0.800	
trans-Chlordane	ug/l	NE	< 0.0400	< 0.0455		< 0.0400		< 0.0400	
GC Semivolatiles by 8082A									
PCB-1016	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1221	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1232	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1242	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1248	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1254	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1260	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1262	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
PCB-1268	ug/l	0.5	< 0.400	< 0.455		< 0.400		< 0.400	
Metals by 6010D									
Antimony	mg/l	0.006	< 0.0120*	< 0.0120*		< 0.0120*		< 0.0120*	
Arsenic	mg/l	0.01	< 0.00800	0.0211	0.0628	< 0.00800		< 0.00800	< 0.00800
Arsenic (dissolved)	mg/l	0.01 (total)			0.0509				< 0.00800
Beryllium	mg/l	0.004	< 0.00400	< 0.00400		< 0.00400		< 0.00400	
Cadmium	mg/l	0.005	< 0.00500	< 0.00500		< 0.00500		< 0.00500	
Chromium	mg/l	0.1	0.0508	0.0667		< 0.0100		< 0.0100	
Copper	mg/l	NE	< 0.0100	< 0.0100		< 0.0100		< 0.0100	
Lead	mg/l	0.015	< 0.0150	0.0635	0.145	0.0164	< 0.0150	0.0242	< 0.0150
Lead (dissolved)	mg/l	0.015 (total)			< 0.0150		< 0.0150		< 0.0150
Nickel	mg/l	0.1	< 0.0100	< 0.0100		< 0.0100		< 0.0100	
Selenium	mg/l	0.5	< 0.0300	< 0.0300		< 0.0300		< 0.0300	
Silver	mg/l	NE	< 0.0100	< 0.0100		< 0.0100		< 0.0100	
Thallium	mg/l	0.002	< 0.0100	< 0.0100		< 0.0100		< 0.0100	
Zinc	mg/l	NE	< 0.0100	0.0203		0.0722		0.265	
Metals by 7470A									
Mercury	mg/l	0.002	< 0.000200	< 0.000200		< 0.000200		< 0.000200	

Notes:

NE - Not Established
mg/l - milligrams per liter
ug/l - micrograms per liter

Bolded results identify values that meet or exceed the laboratory's reporting limit.

Dark Blue results identify values that meet or exceed RIDEM's Method 1 GA Groundwater Objective.

*laboratory's reporting limit exceeds one or more regulatory criteria

* - LCS and/or LCSD is outside acceptance limits, low biased.

*1 - LCS/LCSD RPD exceeds control limits.

E - Result exceeded calibration range.



Table 4
Soil Gas Analysis
RHS - Former Harrison Avenue Dump
Newport, RI

Landtec Landfill Gas Meter Readings					
ID	Time	O2 (%)	CO2 (%)	CH4 (%)	H2S (ppm)
SVP-1	1605	19.8	2	0	0
SVP-2	1435	19.6	1.3	0.0	0.0
SVP-3	1425	15.7	4.1	0.0	0.0
SVP-4	1415	21.6	3.6	17.7	0.0
SVP-5	1405	20.8	0.3	0.0	0.0
SVP-6	1325	16.3	5.9	0.0	0.0
SVP-7	1555	20.1	1.7	0.0	0.0

PID Readings							
ID	30 sec.	60 sec.	90 sec.	120 sec.	150 sec.	Peak	Notes
SVP-1	0.0	0.0	0.0	0.0	0.0	0.0	By TP-8
SVP-2	0.0	0.0	0.0	0.0	0.0	0.0	By TP-1
SVP-3	0.0	0.0	0.0	0.0	0.0	0.0	By TP-3
SVP-4	0.0	0.0	0.0	0.0	0.0	0.0	By TP-4
SVP-5	0.0	0.0	0.0	0.0	0.0	0.0	By TP-5
SVP-6	0.0	0.0	0.0	0.0	0.0	0.0	By TP-6
SVP-7	0.0	0.0	0.0	0.0	0.0	0.0	By TP-7

Appendix A: Limitations

Limitations

Former Harrison Avenue Site Newport, Rhode Island

This report has been prepared for the sole and exclusive use of the Client. It is subject to and issued in connection with the Agreement and the provisions thereof. Any use or reliance upon information provided in this report, without the specific written authorization of the Client and VHB, shall be at the User's sole risk.

In conducting this assessment, VHB has obtained and relied upon information from multiple sources to form certain conclusions regarding potential environmental issues at and in the vicinity of the subject property. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information.

The objectives of the assessment described in this report were to assess the physical characteristics of the subject property with respect to overt evidence of past or present use, storage, and/or disposal of oil or hazardous materials as defined in applicable state and federal environmental laws and regulations, and to gather information regarding current and past operations and environmental conditions at and in the vicinity of the subject property.

Where access was denied or conditions obscured, VHB makes no report on such areas.

No attempt has been made to assess the compliance status of any past or present Owner or Operator of the Site with any federal, state, or local laws or regulations.

The findings, observations, and conclusions presented in this report are limited by the scope of services outlined in our contract amendment between VHB and the Client. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and is included in this report.

The assessment presented in this report is based solely upon information gathered to date. Should further environmental or other relevant information be developed at a later date, Client should bring the information to the attention of VHB as soon as possible. Based upon an evaluation, VHB may modify the report and its conclusion.

Appendix B: Soil Boring Logs



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-1
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	12.5
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	14.5'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		0950	3'	0.0
2.5-5		0950	3'	0.0
5-7.5		0955	2'	0.0
7.5-10		0955	2'	0.0
10-12.5			3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards/debris
Dark gray, orange, m sand, and gravel, rock fragments, pieces of ceramic debris
Brick shards/debris
Refusal 14.5

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-2
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	15'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	15'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1030	3.5'	0.0
2.5-5		1030	3.5'	0.0
5-7.5		1035	2.5'	0.0
7.5-10		1035	2.5'	0.0
10-12.5		1040	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal 15

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-3
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	15'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	15'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1015	3.5'	0.0
2.5-5		1015	3.5'	0.0
5-7.5		1020	3'	0.0
7.5-10		1020	3'	0.0
10-12.5		1030	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
Dark gray, orange, m sand, and gravel, rock fragments, pieces of ceramic/debris
"
Refusal at 15'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-4
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	14'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	14'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1040	3.5'	0.0
2.5-5		1040	3.5'	0.0
5-7.5		1045	3'	0.0
7.5-10		1045	3'	0.0
10-12.5		1050	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 14'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-6
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	13'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	13'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1110	3.5'	0.0
2.5-5		1110	3.5'	0.0
5-7.5		1115	3'	0.0
7.5-10		1115	3'	0.0
10-12.5		1120	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 13'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-7
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	14'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	14'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1130	4'	0.0
2.5-5		1130	4'	0.0
5-7.5		1135	3.5'	0.0
7.5-10		1135	3.5'	0.0
10-12.5		1140	3.5'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 14'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-8
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	14'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	14.5'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1150	3.5'	0.0
2.5-5		1150	3.5'	0.0
5-7.5		1155	3'	0.0
7.5-10		1155	3'	0.0
10-12.5		1200	3.5'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 14.5'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-9
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	14'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	15'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1210	3.3'	0.0
2.5-5		1210	3.3'	0.0
5-7.5		1210	3.5'	0.0
7.5-10		1210	3.5'	0.0
10-12.5		1215	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 15'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-10
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	14'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	15'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1210	3.3'	0.0
2.5-5		1210	3.3'	0.0
5-7.5		1210	3.5'	0.0
7.5-10		1210	3.5'	0.0
10-12.5		1215	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 15'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-11
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	13'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	13'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1210	3.3'	0.0
2.5-5		1210	3.3'	0.0
5-7.5		1210	3.5'	0.0
7.5-10		1210	3.5'	0.0
10-12.5		1215	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 13'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Former Harrison Avenue Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	10/9/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	Cont
PRE-CLEAR DEPTH:	None
LOGGED BY:	VP

LOCATION ID:	VHB-12
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	13'
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	13'

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
0-2.5		1210	3.3'	0.0
2.5-5		1210	3.3'	0.0
5-7.5		1210	3.5'	0.0
7.5-10		1210	3.5'	0.0
10-12.5		1215	3'	0.0

Dark brown organic, f/m sand, some gravel, to c sand/gravel
' + glass shards, brick, and/or ceramic debris
"
"
Refusal at 13'

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Harrison Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	9/18/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	
PRE-CLEAR DEPTH:	
LOGGED BY:	VP

LOCATION ID: SB-1	
ESTIMATED DEPTH TO WATER (ft.):	N/A
TOTAL BORING DEPTH (ft.):	23
BOTTOM OF WELL DEPTH (ft.):	N/A
PVC DIAMETER, SLOT:	N/A
RISER LENGTH (ft.):	N/A
SCREEN LENGTH (ft.):	N/A
FINISH:	N/A
REFUSAL ENCOUNTERED:	Yes

<u>NOTES/SKETCH:</u>

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
15-20	15-17.5		45	0.1
	17.5-20	1500		0.3
20-23	20-23		36	0.9

Dark brown/gray, f/m sand and clay, dense, plasticity, some gravel. Surficial sample taken at 15'-17.5'
Tan/gray, f/m sand/clay, dense, plasticity, some gravel. No subsurface sample taken due to shallow refusal.

SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY) 2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%) 3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC) 4) MOISTURE (WET, MOIST, DRY) 5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED) 7) COLOR (GREY, BROWN, etc.) 8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.) 9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC) 10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Harrison Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	9/18/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	
PRE-CLEAR DEPTH:	
LOGGED BY:	VP

LOCATION ID:	SB-2
ESTIMATED DEPTH TO WATER (ft.):	27.5'
TOTAL BORING DEPTH (ft.):	30.5
BOTTOM OF WELL DEPTH (ft.):	30.5
PVC DIAMETER, SLOT:	1"
RISER LENGTH (ft.):	33.7
SCREEN LENGTH (ft.):	10
FINISH:	Standpipe
REFUSAL ENCOUNTERED:	Yes

NOTES/SKETCH:
Monitoring Well ID: VHB-CS (central stockpile)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

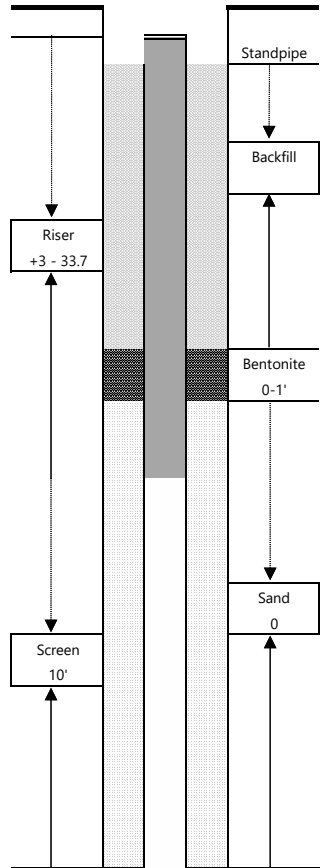
WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
15-20	15-17.5		56	2.1
	17.5-20	1005		0.4
20-25	20-22.5		51.5	0.4
	22.5-25	1020		0.1
25-30	25-27.5		36	3.3
	27.5-30			0.6

Brown, f/m sand, trace clay, little gravel, some light fine + dry stone dust, surficial sample taken at 17.5' (start of surface grade)

Brown to white/gray to tan, f/m sand, some gravel, slight plasticity (subsurface sample taken at 22.5)

Tan/brown, moist, saturated at bottom, m sand, clay, and gravel, coarse sand/gravel at bottom



SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED)
2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%)	7) COLOR (GREY, BROWN, etc.)
3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC)	8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.)
4) MOISTURE (WET, MOIST, DRY)	9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC)
5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)



CLIENT:	City of Newport
PROJECT:	Harrison Dump
PROJECT #:	16108.10
DIGSAFE:	
DRILLER:	New England GeoTech
DRILLING DATE:	9/18/2024
DRILLING METHOD:	GeoProbe
SAMPLING METHOD:	
PRE-CLEAR DEPTH:	
LOGGED BY:	VP

LOCATION ID:	SB-3
ESTIMATED DEPTH TO WATER (ft.):	35
TOTAL BORING DEPTH (ft.):	35
BOTTOM OF WELL DEPTH (ft.):	35
PVC DIAMETER, SLOT:	1"
RISER LENGTH (ft.):	40
SCREEN LENGTH (ft.):	10
FINISH:	Standpipe
REFUSAL ENCOUNTERED:	Yes

NOTES/SKETCH:
Monitoring Well ID: VHB-ES (Eastern Stockpile)

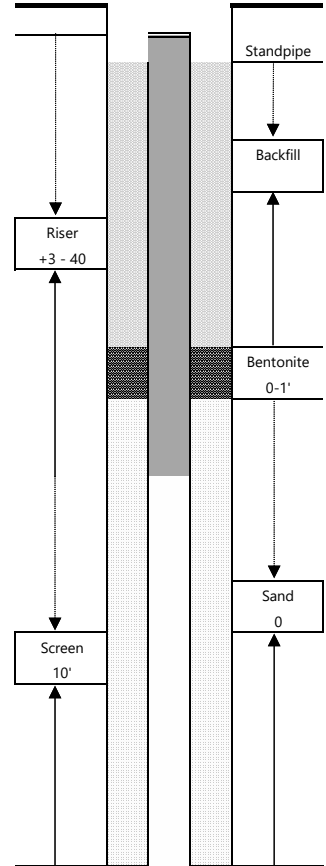
SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
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SOIL DESCRIPTION

WELL CONSTRUCTION (ft.)

SLEEVE INTERVAL (ft.)	SCREENING DEPTH (ft.)	LAB SAMPLE	RECOVERY (in.)	PID (ppm)
15-20	15-17.5		52.8	0.9
	17.5-20	1130		12.2
20-25	20-22.5		48	3.4
	22.5-25			3.0
25-30	25-27.5		24	0.2
	27.5-30			1.0
30-35	30-32.5	1220	42	0.9
	32.5-35			5.7

Brown fine to medium SAND, Silt, loose, non-plastic, no odor/stain, dry. Surficial sample taken at 17.5'
Dark brown, m/c sand + clay, loose, some bands of gray rock fragments
Brown to mostly fine/white rock dust fragments
Dark brown, clayey, saturated for last ~1'. Subsurface sample taken at 30' due to vicinity to high PID reading. (32.5-35' too saturated)



SOIL DESCRIPTIONS:	
1) PRIMARY GRAIN SIZE (BOULDERS, COBBLES, GRAVEL, SAND (COARSE, FINE) SILT, CLAY)	6) ANGULARITY (V. ANGULAR, ANG, SUB ANG, SUB ROUNDED, ROUNDED, WELL ROUNDED)
2) SECONDARY GRAIN SIZE (TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%)	7) COLOR (GREY, BROWN, etc.)
3) PLASTICITY (VERY HIGH, HIGH, MED., LOW, SLIGHT, NON-PLASTIC)	8) STRUCTURES, STAINING, ALTERATION (LAMINATED, BEDDED, IRON STAINED, ETC.)
4) MOISTURE (WET, MOIST, DRY)	9) ODORS/ORGANIC CONTENT (PETROLEUM, SEPTIC)
5) DENSITY (LOOSE, MEDIUM DENSE, HARD)	10) GEOLOGICAL INTERPRETATION (I.E. FILL/TILL, GLACIAL CLAY, CHANNEL DEPOSIT, etc.)


Appendix C: Test Pit Logs



DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR:

LOCATION ID: **TP-1**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED:

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-4'	2	TP-1: Light Brown, fine to medium sand, trace silt, little gravel, boulders up to 1-2', 4' ledge refusal		<2'	Sample taken 1245, PID = 0.0 ppm Final Depth 4' due to refusal
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				


Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR:

LOCATION ID: **TP-2**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED:

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-5'	2	Light brown, fine to medium sand, some silt, trace gravel, organics first 3", some boulders		<2'	Sample taken 0830, PID = 0.0 ppm Final depth at 5' due to refusal
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				


Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR:

LOCATION ID: **TP-3**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED:

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-4'	2	Organics first 3", brown/gray fine to medium sand, some silt, trace rock, boulders, little gravel		<2'	Sample taken at 0930, PID = 0.0 ppm PVC debris ~3', old metal piece of rebar Final depth at 4' due to refusal


Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR:

LOCATION ID: **TP-4**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED:

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-3'	2	Tan/light brown fine to medium san, some silt and gravel		<1'	Sample taken at 1010, PID = 0.1 ppm
	3	Refusal at 3' ledge			Final depth at 3' due to refusal
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				


Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR:

LOCATION ID: **TP-5**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED:

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-6'	2	Light tan/gray fine sand, trace gravel		<1'	Sample taken at 1045, Soil odors (manure?)
	4	Gray/brown fine to medium sand, some clay, little gravel		<1'	PID = 0.1 ppm
	6	Gray/orange clay, some gravel		<1'	Final depth at 6' due to refusal
	8				
	10				
	12				
	14				
	16				
	18				


Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR:

LOCATION ID: **TP-6**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED:

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-4'	2	Light tan/brown fine to medium sand, little silt, trace gravel, some boulder/rock (<1')		<1'	Sample taken at 1120, PID = 0.2 ppm
	4	Lots of rocks/fill, and groundwater at 4'		<2'	Final depth at 4' due to refusal + groundwater
	6				
	8				
	10				
	12				
	14				
	16				
	18				


Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR: John

LOCATION ID: **TP-7**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED: -

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-4'	2	Light brown/tan, fine to medium sand, trace silt, little gravel		<1'	Sample taken at 1445, PID = 0.0
	4	Dark brown, fine to medium sand, trace silt, some gravel		<1'	Final depth at 4' due to refusal
	6				
	8				
	10				
	12				
	14				
	16				
	18				


Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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DATE: 9/17/2024
 CLIENT: City of Newport
 LOCATION: Rogers High School
 15 Wickham Rd RI
 VHB REP: VP
 CONTRACTOR: Strategic Environmental
 OPERATOR:

LOCATION ID: **TP-8**
 PROJECT: 16108.10
 DIMENSIONS (LxWxD): -
 GRADE ELEVATION: -
 WEATHER: 63°, partly sunny, dry
 EQUIPMENT: Mini-ex
 PID USED:

Sample #	Depth (Ft.)	Soil Description	Excavator Effort	Boulder Size	Remarks
0'-6'	2	Tan fine to medium sand, some silt, little gravel, little rock		<1'	Sample taken at 1515, PID = 0.0
	6	Brown, fine to medium sand, some silt, little gravel, little rock		<1'	Final depth at 6' due to refusal

Legend F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Grey Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	Excavation Effort: E = Easy M = Moderate D = Difficult	 Groundwater
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Appendix D: Soil Laboratory Certificates of Analysis

Appendix E: Groundwater Laboratory Certificates of Analysis