River's Edge Development
484 – 490 Boston Post Road
Wayland, Massachusetts
RTN 3-34474 & 36013

DRAFT PUBLIC INVOLVEMENT PLAN

MARCH 18, 2021

PREPARED FOR:
Alta River's Edge, LLC
91 Hartwell Avenue
Lexington, MA 02421
781.541.5821

SUBMITTED TO:
Massachusetts Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

PREPARED BY:
The Vertex Companies, Inc.
100 North Washington Street, Suite 302
Boston, MA 02114
PHONE 617.275.5407

VERTEX PROJECT NO: 67404

RELEASE TRACKING NUMBERS (RTNS): 3-36013 and 3-34474

March 18, 2021

Massachusetts Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

RE: **Draft Public Involvement Plan**
River's Edge Development
484 – 490 Boston Post Road
Wayland, Massachusetts
VERTEX Project No. 67404
Release Tracking Numbers 3-36013 and 3-34474

Attention Bureau of Waste Site Cleanup:

The Vertex Companies, Inc. (VERTEX) prepared this draft Public Involvement Plan (PIP) for the releases of hazardous materials (HM) listed by the Massachusetts Department of Environmental Protection (MassDEP) under Release Tracking Numbers (RTN) 3-36013 and 3-34474. RTN 3-36013 is associated with the detection of semi-volatile organic compounds (SVOCs), lead, antimony, and copper in soil and dissolved nickel, dissolved arsenic, and ammonia in groundwater at the above-referenced property (the Site). RTN 3-34474 is associated with a notification to the MassDEP regarding the presence of debris containing asbestos located within a soil stockpile. This draft Plan was prepared by VERTEX on behalf of the Alta River's Edge, LLC (Alta), an Eligible Person as defined by the Massachusetts Contingency Plan (MCP).

This document has been prepared in accordance with Title 310 Code of Massachusetts Regulations (CMR) section 40.1405(6) of the MCP. It is being submitted to the MassDEP electronically via the eDEP online filing system and is accompanied by MassDEP Transmittal Form BWSC-126.

Our professional opinions contained herein are based solely on the assessment activities to date as described in this report and are subject to the Limitations contained herein.

Please do not hesitate to contact us should you have any questions or require additional information.

Sincerely,

The Vertex Companies, Inc.

Kristen Sarson
Project Manager
ksarson@vertexeng.com
781.917.5360 (mobile)

William J. Gibbons, PG, LSP
Senior Project Manager
bgibbons@vertexeng.com
781.698.7654 (mobile)

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1.0 INTRODUCTION

This Draft Public Involvement Plan (PIP) addresses proposed public involment activities associated with environmental response actions required by the Massachusetts Contingency Plan (MCP) Title 310 Code of Massachusetts Regulations section 40.0000 at the property located at 484-490 Boston Post Road in Wayland, Massachusetts (the "property"). The location of property is shown on Figure 1 and major property features are shown on Figure 2.

This Draft PIP was prepared by The Vertex Companies, Inc. (VERTEX) on behalf of Alta River's Edge, LLC (Alta) in accordance with section 40.1405(6) of the MCP for hazardous material releases to the environment referenced by the Massachusetts Department of Environmental Protection (MassDEP) under Release Tracking Numbers (RTNs) 3-36013 and RTN 3-34474.

This Draft PIP has been submitted to the MassDEP electronically via the eDEP system with MassDEP Miscellaneous Document Transmittal Form BWSC-126 and submitted to the online public repository at https://vertexeng.com/rivers-edge-public-involvement-plan-public-repository/. Paper copies can be provided on demand.

1.1 Property Description

The property is the former location of the Town of Wayland Municipal Waste Water Treatment Plant, a Town of Wayland Department of Public Works a storage yard, and a Town of Wayland small arms firing range. The property is a vacant 8.25-acre parcel of land located in the western portion of the Town, west of the Sudbury River. The property is abutted by the Sudbury Landfill to the west, by forested wetlands followed by the Wayland Transfer Station to the north, by

wetlands followed by the Sudbury River to the east, and Boston Post Road followed by a historical abandoned landfill to the south.

The Town publically sought proposals from qualified firms for the development of a multi-unit residential complex. Alta's proposal was selected by the Town and the property was sold to Alta on February 22, 2021.

1.2 Designation as a PIP Site

On December 28, 2020, the Town of Wayland, the owner of the property prior to Feburary 22, 2021, received a petition from Wayland residents, requesting that the Sites associated with RTNs 3-36013 and 3-34474 be designated as PIP Sites in accordance with section 40.1404 of the MCP. This regulation requires that, upon receiving such a petition, a plan for involving the public in decisions regarding environmental response actions must be prepared and a public meeting held to present the proposed plan. On January 14, 2021, the Town of Wayland formally responded to the petition, designating the Site as a PIP site.

Following the purchase of the property, PIP responsibilities were transferred to Alta.

1.3 Objectives of the PIP

In accordance with the requirements of the MCP the objectives of the PIP and the public involvement responsibilties of Alta are:

- To identify specific opportunities for public participation regarding proposed MCP response actions;
- Describe how and when advance notices of milestone Site activities will be provided; and
- Explain how, when, and where Site environmental information will be made available to the public.

1.4 Distribution of Draft PIP

A copy of this Draft PIP Plan will be provided to those residents who petitioned for the Site to be designated as a PIP Site. A copy will also be provided to the Chairs of the Wayland Board of

Health and Wayland Conservation Commission, as well as the Town Administrator. The people to whom the Draft PIP is to be provided will herein henceforth be referred to as the "PIP Group." An electronic copy of this Draft PIP Plan has also been placed in the designated River's Edge PIP Site repository hosted on VERTEX's public website located at:

- https://vertexeng.com/rivers-edge-public-involvement-plan-public-repository/

This Draft PIP is also available on the MassDEP's online file viewer located at:

- https://eeaonline.eea.state.ma.us/EEA/fileviewer/Rtn.aspx?rtn=3-0036013

All interested parties may also request a copy of the draft PIP in either electronic or paper format by submitting a request to the contact listed below.

This Draft PIP Plan will be presented during a live online public meeting open to interested parties. Following the presentation, interested parties may provide comment and submit questions regarding the Draft PIP Plan during the public comment period. The public comment period will commence on March 19, 2021 and end on April 27, 2021. This public comment period has been extended to 40 days from the 20 day period required by the MCP. Comments may be submitted to either person listed below:

Kristen Sarson The Vertex Companies, Inc. 100 North Washington Street, 302 Boston, MA 02114 ksarson@vertexeng.com 781-917-5460	William J. Gibbons, PG, LSP The Vertex Companies, Inc. 100 North Washington Street, 302 Boston, MA 02114 bgibbons@vertexeng.com 617-698-7654

Following the 40-calendar-day comment period, VERTEX will review, summarize, and respond to relevant comments and address revisions to the plan as appropriate. The Final PIP Plan will then be placed in the designated River's Edge information repository and uploaded to the MassDEP website.

1.5 Distribution of Immediate Response Action Completion & Permanent Solution Report

The Immediate Response Action Completion & Permanent Solution Report for RTN 3-34474, written by CMG Environmental Services on behalf of the Town of Wayland, was submitted to the MassDEP on January 26, 2021. The submittal occurred following the designation of the Site as a PIP site; therefore, the document is available for public comment. An electronic copy of the report has been placed in the designated River's Edge PIP Site repository hosted on VERTEX's public website located at:

- https://vertexeng.com/rivers-edge-public-involvement-plan-public-repository/

The Immediate Response Action Completion & Permanent Solution Report is also available on the MassDEP's online file viewer located at:

- https://eeaonline.eea.state.ma.us/EEA/fileviewer/Rtn.aspx?rtn=3-0034474

All interested parties may also request a copy of the Immediate Response Action Completion & Permanent Solution Report in either electronic or paper format by submitting a request to the contact listed below.

The Immediate Response Action Completion & Permanent Solution Report will be presented alongside the draft PIP during a live online public meeting open to interested parties. Following the presentation, interested parties may provide comment and submit questions regarding the Immediate Response Action Completion & Permanent Solution Report during the public comment period. The public comment period will commence on March 19, 2021 and end on April 27, 2021. This public comment period has been extended to 40 days from the 20 day period required by the MCP. Comments may be submitted to either person listed below:

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Following the 40-calendar-day comment period, VERTEX will review, summarize, and respond to relevant comments.

1.6 MCP Process Summary

The Massachusetts General Laws Chapter 21E (MGL c. 21E) and the MCP regulations (310 CMR 40.0000) address environmental releases in Massachusetts. MGL c. 21E "The Massachusetts Oil and Hazardous Material Release Prevention and Response Act" establishes who is liable for the assessment and remediation of releases of oil and hazardous materials (OHM) to the environment. MGL c 21E indicates that the liable entities include past and present owners and operators of properties where the release has occurred. MGL c 21E also establishes a limitation on liability for "Eligible Persons" (an "Eligible Person" may be an individual or an organization) who did not own the property when the release occurred and who did not contribute to the release or make it worse. This limitation of liability for Eligible Persons is intended to incentivize the cleanup of properties.

The MCP is a set of detailed regulations that outline the MassDEP's requirements for the assessment and remediation of OHM releases, including MassDEP notification requirements, Reportable Concentrations and Reportable Quantities applicable to releases of OHM, cleanup standards, and public involvement requirements. The MCP requires that the nature and extent of the OHM be determined and that the potential risk of the OHM must be characterized. The MCP requires that a Condition of No Significant Risk to human health, public welfare, safety, and the environment be achieved for the OHM release and that background conditions that would exist in the absence of the OHM release be achieved or approached to the extent technically and economically feasible.

MCP response actions are overseen by a state-licensed environmental professional, called a Licensed Site Professional (LSP) to conduct and oversee the cleanup. An LSP is licensed by the State based on education, experience, and the satisfactory completion of an examination. VERTEX is responsible for providing LSP services for the Site. More information on the LSP

Program can be located at https://www.mass.gov/how-to/hiring-a-licensed-site-professional and https://www.lspa.org/what-is-an-lsp.

1.7 MCP Requirements for Public Involvement Plan Sites

Based on section 40.1405 of the MCP, the MCP requires the following for PIP designated sites:

- Public Involvement Activities at PIP designated sites will pertain to response actions conducted following the submission of the PIP petition, except at sites where response actions beyond Phase I are conducted prior to the submittal of a Tier Classification. At sites where this is the case, Public Involvement Activities shall pertain to all response actions conducted provided that the PIP petition is received within 30-days of the publication of the public notice required upon submittal of a Tier Classification.

- Within 80-days of receiving the PIP petition for an eligible site, a draft site-specific PIP shall be prepared, and a public meeting shall be held to present the draft PIP, solicit public comment on the draft PIP, and provide information about site conditions. This public meeting shall be held at a time and location convenient to the affected public. Residents of the potentially affected community shall be informed of the public meeting by the following activities:

    - A public notice shall be published at least 14 days prior to the meeting; and

    - A copy of the public notice announcing the public meeting shall be mailed to each petitioner, and the Chief municipal Officer and Board of Health in the community in which the disposal site is located.

- The draft Public Involvement Plan shall be made available for public review on the date of the public meeting to present it and a public comment period that runs for a minimum of 20 days from the date of the public meeting shall be provided.

- The PIP shall be finalized within 30 days of the close of the public comment period on the draft PIP.

- A summary of the comments received on the draft PIP will be developed. The summary will contain the received comments, identify comments that have been incorporated into the final PIP, and explanations for comments that were not incorporated into the final PIP. The copy of the response to comments and the final PIP shall be made available in the information repositories established for the site.

- Copies of all the documents related to the public involvement process shall be submitted to the MassDEP upon their availability.
- The PIP shall be implemented throughout the response action process.

1.8 Person/Entity Undertaking Response Actions and Licensed Site Professional

PERSON UNDERTAKING RESPONSE ACTIONS	LICENSED SITE PROFESSIONAL
Alta River's Edge, LLC91 Hartwell Avenue Lexington, Massachusetts	William J. Gibbons, LSP #5217 The Vertex Companies, Inc. 100 North Washington Street, Suite 302 Boston, Massachusetts (617) 275-5407

1.9 Relevant Report Sections

This PIP Plan includes the following sections:

- Section 2.0 describes the background information on the property, including historical property uses and environmental assessments completed to date.
- Section 3.0 describes the MCP timeline.
- Section 4.0 addresses the identified public concerns at the property.
- Section 5.0 describes the proposed public involvement activities, and milestones for which public meetings and/or public comment will be sought.
- Section 6.0 and Appendix C provides a schedule for public involvement activities.
- Section 7.0 outlines the roles and responsibilities of those involved in implementing the PIP.

2.0 DESCRIPTION OF RELEASE CONDITIONS

2.1 Property Description

The property consists of approximately 8.25 acres in Wayland, Massachusetts, identified by the Town of Wayland Assessor as Map 22, Lot 6. The western portion of the property is developed with the former Town of Wayland wastewater treatment plant that was known as the Route 20 Septage Facility. The former Septage Facility includes a building, an equalization tank, primary clarifier tank, thickener tank, wastewater discharge basins, an asphalt-paved parking area, and a hazardous material storage trailer. The wastewater treatment plant building and associated buildings are currently being demolished as part of property redevelopment activities. No structures have historically been located on the remainder of the property.

The northwestern portion of the property was historically used as a firing range by the Wayland Police Department since at least the mid-1970s until 2017. The firing range consisted of an earthen berm and a level unvegetated area of sand and gravel in front of the berm. The eastern portion of the property is covered by an approximately 32,000 cubic-yard stockpile of soil containing minor amounts of demolition debris, and crushed asphalt, brick, and concrete generated by the Wayland Department of Public Works (DPW) from projects conducted over many years at locations throughout the Town. Also located in the eastern half of the property is an approximately 4,500 cubic-yard stockpile of screened soil.

2.2 Property History

The property historically consisted of undeveloped cleared land prior to the construction of the firing range sometime prior to the mid-1970s. The southwestern portion of the property was developed with the municipal wastewater treatment plant in 1983. Based on available historical records, it appears that the storage of DPW soil and waste asphalt, masonry, concrete, and other debris began in the mid-1980s, following the construction of the wastewater treatment plant. Operation of the wastewater treatment plant ended in 2009 and use of the firing range and DPW stockpiling of excess material at the property ceased in 2017.

Several historical releases of OHM have been reported at the property. In 1987, RTN 3-1724 was assigned to the reported discharge of approximately 3-gallons of unknown oil into the wastewater plant's receiving tanks. In 1993 the MassDEP determined the area associated with the release was no longer considered a "Disposal Site" and the RTN status was changed to DEPNDS (MassDEP Not a Disposal Site).

In August 2017, RTN 3-34474 was assigned to the discovery of debris containing greater than one pound of asbestos within the 32,000 cubic-yard stockpile. The asbestos containing waste material (ACWM), consisting of transite pipe and floor tiles, was discovered during regrading of the 32,000 cubic yard stockpile. The Town of Wayland, the owner at the time, reported the condition to the MassDEP and the extent of the ACWM was delineated in August 2018. Delineation efforts included the collection of 15 soil samples in the area of the ACWM debris and analysis for asbestos. No asbestos was detected in any of the 15 soil samples.

Following delineation, VERTEX prepared a Non-Traditional Asbestos Work Plan (NTAWP), which was approved by the MassDEP, and in December 2018, approximately 2,000 cubic yards of commingled soil and ACWM was excavated, transported, and disposed of off-site at a licensed disposal facility. Excavation and loading of the material into trucks was conducted under the continuous observation of a Massachusetts-licensed asbestos inspector and continuous air monitoring. Air monitoring results were provided daily to the MassDEP and all air monitoring results were within acceptable MassDEP limits. Following the excavation and off-site disposal of the comingled soil and ACWM, and closure of the NTAWP with the MassDEP, additional characterization of the soil also included collection and analysis of 80 additional soil samples for asbestos; no asbestos was detected. During the collection of the 80 soil samples any debris considered to be potential ACWM was collected and laboratory analyzed, and none were found to be ACWM. On January 26, 2021 The Town of Wayland submitted a Permanent Solution Statement with No Conditions Statement to the MassDEP indicating that a Condition of No Significant Risk had been achieved, thereby fulfilling the MCP required response actions for RTN 3-34474. As this report was submitted following the PIP Site designation, this report is available for public comment.

2.3 Soil and Groundwater Categories According to the MCP

2.3.1 Soil

The MCP OHM Reportable Concentration category that applies to soil at the property is category RCS-1. Category RCS-1 applies because the property is located within an area mapped by the MassDEP as a medium and high yield aquifer and is therefore considered a potential drinking water resource area.

Based upon current property usage and on the definitions in section 40.0933(5) of the MCP, the Method 1 risk characterization cleanup standards applicable to soil at the property are categories S-2 and S-3 standards. However, since the Site is currently being developed for residential use, soil samples collected at the Site will be compared to the more stringent S-1 cleanup standards applicable when children may be frequently present and their activities may result in intensive contact with soil.

2.3.2 Groundwater

The MCP OHM Reportable Concentration category that applies to groundwater at the property is category RCGW-1. Category RCGW-1 applies because the property is located within an area mapped by the MassDEP as medium and high yield aquifers and is therefore considered a potential drinking water resource area.

The MCP Method 1 risk characterization cleanup standards currently applicable to groundwater at the property are categories GW-1 and GW-3, and after development category GW-2 standards will apply within 30 feet of occupied buildings. Category GW-1 applies because the area of the property is located in a potential drinking water resource area. However, VERTEX notes that due to the presence of multiple waste landfills in the immediate area of the property, the potential for groundwater to be used for drinking water appears to be low. Category GW-2 will apply in the future to locations within 30 feet of occupied buildings and where the average annual depth to groundwater is less than 15 feet. The GW-2 category is considered protective of potential risks

from OHM volatilization from groundwater into indoor air. Category GW-3 applies because all groundwater in Massachusetts is considered a potential source of discharge to surface water.

2.4 Environmental Investigations

In 2017, Alta retained VERTEX to conduct an American Society for Testing and Materials standard Phase I Environmental Site Assessment (ESA) to identify Recognized Environmental Conditions (RECs) in connection with the property. Phase I ESAs are commonly conducted by buyers of properties prior to purchase. A REC is defined as "presence or likely presence of hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The Phase I ESA identified the following RECs at the property:

- The 32,000 cubic yard stockpile of DPW soil and debris;
- The former firing range; and
- Groundwater impacts from the abutting Sudbury Landfill.

VERTEX also identified a former hazardous material storage trailer, former underground storage tanks, and methane impacts from the abutting Sudbury Landfill as environmental concerns at the property.

In 2019, VERTEX conducted a Phase II Limited Subsurface Investigation (LSI) to investigate the identified RECs. The environmental investigation included the collection and analysis of 102 soil samples, seven (7) groundwater samples, and six (6) soil gas samples. The samples were analyzed for a wide variety of parameters and the results were compared to applicable regulatory standards. A summary of the Phase II LSI findings is provided below.

2.4.1 Soil Stockpiles

Investigation following ACWM abatement under RTN 3-34474

VERTEX identified the 32,000-cubic yard soil stockpile as a potential environmental concern due to potential historical impacts and previous detection of ACWM.

In July 2018, VERTEX oversaw the excavation of 15 test pits through the entire thickness of the stockpile to assess the extent of the identified asbestos. Based on analysis of soil and debris samples collected during this investigation, the extent of the ACWM was delineated to an approximately 2,000-cubic-yard volume of the approximately 32,000 cubic yard stockpile.

Following the removal (as described above in Section 2.2) of the 2,000 cubic yards of comingled soil and asbestos containing waste debris under RTN 3-34474, in February 2019 the stockpile was graded to an approximate height of 10 feet to enable the collection and analysis of samples to further assess potential impacts to the stockpiled soil. The graded stockpile was surveyed and divided into 50-foot by 50-foot characterization cells and the cell boundaries and nodes were marked with stakes. The volume of each grid cell was approximately 925 cubic yards. In March 2019, VERTEX oversaw the advancement of 39 test pits within the 32,000 cubic yard stockpile; one test pit was completed within each characterization cell. A composite sample composed of approximately five equal weight aliquots was collected from the 0 to 5 foot depth interval and a second five-point composite sample was collected from the 5 to 10 foot depth interval (and from the 10 to 15 foot depth interval in cells E5 and D3 where the stockpile was thicker than 10 feet). A total of 80 soil samples were collected throughout the stockpile. An additional five test pits were advanced within the 4,500 cubic yard stockpile. The sample frequency collected for both the 32,000 cubic yard and 4,500 cubic yard stockpile equated to approximately one sample for every 500 cubic yards, which is the standard frequency required to characterize soil for disposal or reuse at Massachusetts-licensed landfills and soil reclamation facilities. The samples were submitted to Con-Test Analytical Laboratory (Con-Test) of East Longmeadow, Massachusetts for the following analyses:

- Volatile organic compounds (VOC) by United States Environmental Protection Agency (USEPA) Method 8260;
- Semi-VOCs (SVOCs) by USEPA Method 8270;
- Total petroleum hydrocarbons (TPH) by USEPA Method 8100;
- MCP 14 metals by USEPA Method series 6000 and 7000;
- Polychlorinated biphenyls (PCBs) by USEPA Method 8082 with Soxhlet extraction;
- Ignitability by USEPA Method 1030;
- Corrosivity by USEPA Method 9045C;
- Reactivity (cyanide/sulfide) by USEPA Method 9014 and 9030A;
- Specific conductance by USEPA Method 2510B Modified; and
- Asbestos content by California Air Resources Board (CARB) 435 Method.

Soil samples in which equal to or greater than 1,000 mg/kg TPH was detected were also analyzed for extractable petroleum hydrocarbons (EPH) by MassDEP Method 04.01.

The approximate layout of the sample grid with the corresponding grid identification numbers is shown on Figure 3.

Results

Based on the laboratory analytical results, TPH was detected at concentrations exceeding the MCP RCS-1 Reportable Concentration in 21 of the samples collected from the test pits. However, in accordance with the MCP, the sum of EPH carbon-range fractions did not exceed the RCS-1 Reportable Concentrations. Therefore, detected TPH concentrations did not constitute a reportable condition.

Additionally, SVOCs and/or total lead were detected at concentrations exceeding applicable MCP RCS-1 Reportable Concentrations in 14 soil samples collected from the 32,000 cubic yard stockpile. These detected concentrations constituted a condition for which the MCP requires notification to be made to the MassDEP. On December 2, 2019, the Town notified the MassDEP of the condition and RTN 3-36013 was assigned.

Additional target analytes were not detected in soil samples collected from the 32,000 cubic yard stockpile or the 4,500 cubic yard stockpile. A summary of soil analytical results is presented in Table 1.

2.4.2 Former Firing Range

Investigation

To assess the potential for lead impacts to soil at the firing range, VERTEX established a grid of characterization cells across the firing range and screened samples collected from depths of approximately 0 to 2 feet within the center of each cell for lead using a handheld x-ray fluorescence (XRF) analyzer. XRF analyzer readings are considered an indication of potential lead concentrations and are useful indicators of relative lead concentrations between locations. Six (6) soil samples were selected for laboratory analysis based on the XRF screening results.

XRF readings of lead concentrations in soil samples ranged up to 8,568 parts per million (ppm), with the average concentration throughout the firing range of 1,050 ppm.

VERTEX collected soil samples from six of the characterization cells where elevated XRF readings were obtained. The samples (designated V-201 through V-206) were submitted to Con-Test for the following laboratory analyses:

- Lead, antimony, copper, and zinc by USEPA Method 6010;
- Tungsten by USEPA Method Tungsten 200.7; and
- Toxicity Characteristic Leaching Procedure (TCLP) extraction and lead analysis by USEPA Methods 1311 and 6010.

An additional sample was collected to characterize the soil for off-site disposal. This additional sample was made up of equal parts of soil collected from each of the characterization cells sample for metals analysis, and analyzed by Con-Test for the following parameters:

- VOCs by USEPA Method 8260;
- SVOCs by USEPA Method 8270;
- TPH by USEPA Method 8100;
- MCP 14 metals[1] by USEPA Method series 6000 and 7000;
- PCBs by USEPA Method 8082 with Soxhlet extraction;

[1] MCP 14 metals are the 14 metals for which the MCP provides method 1 cleanup standards and are antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc

- Ignitability by USEPA Method 1030;
- Corrosivity by USEPA Method 9045C;
- Reactivity (cyanide/sulfide) by USEPA Method 9014 and 9030A; and
- Specific conductance by USEPA Method 2510B Modified.

Results

Total lead was detected in five out of the six samples collected from the firing range at concentrations exceeding the MCP RCS-1 Reportable Concentration. Antimony and copper were detected at concentrations exceeding the applicable MCP RCS-1 Reportable Concentrations in three of the six samples and in four of the six samples, respectively. VERTEX also submitted each of the samples for TCLP extraction and lead analysis. Lead concentrations in each of the six samples (V-201 through V-206) determined by the TCLP extraction method equaled or exceeded the United States Resource Conservation and Recovery Act (RCRA) threshold for classification as a characteristic hazardous waste, if that soil were to be disposed of offsite without stabilization. This soil will therefore be stabilized prior to its removal from the property.

In May 2019, to assess the vertical depth of the metals impacts within the firing range, VERTEX oversaw the advancement of 14 test pits. Eight test pits were advanced within the area east of the firing range berm to a total depth of 6 feet. One composite sample was collected from each test pit from the 2 to 4 foot depth interval (samples V-301 through V-308). The remaining three test pits were advanced through the berm to depths of 2 feet below the berm into the underlying native soil (e.g. 2 feet below the base of the berm), with one composite sample collected from each test pit from the underlying native soil (samples V-309 through V-311). Using a hand auger, VERTEX advanced three soil borings, each to total depths of 4 feet, in the western edge of the firing range, beyond the firing range berm. VERTEX collected one composite sample from each boring from the 2 to 4 foot depth interval (samples V-312 through V-314). Con-Test analyzed each composite sample for the following parameters:

- Antimony, copper, and lead by USEPA Method 6010.

Based on the laboratory analytical results, antimony, copper, and lead were not detected at concentrations exceeding the applicable MCP RCS-1 Reportable Concentrations in samples V-301

through V-314. Separate portions of samples V-310 and V-312 were additionally extracted using the TCLP method analyzed for lead. TCLP extractable lead was detected in sample V-310 at a concentration exceeding the RCRA regulatory threshold. A summary of the firing range soil analytical results is presented in Table 2.

Antimony, copper, and lead impacts in the firing range at concentrations exceeding the applicable MCP RCS-1 Reportable Concentrations were not detected deeper than 2 feet. However, TCLP extractable lead was detected at a concentration exceeding the RCRA regulatory threshold in a sample collected from directly underneath the center of the berm. The antimony, copper, and lead concentrations exceeding applicable MCP RCS-1 Reportable Concentrations were reported to the MassDEP by the Town on December 2, 2019 and are included in RTN 3-36013.

2.4.3 Former Hazardous Material Storage

VERTEX identified three main areas of OHM storage within the former Route 20 Septage Facility portion of the property. The areas were identified as the laboratory area, the machine shop area, and the hazardous materials storage trailer. There was no visual evidence of releases of OHM to the environment in the area of the laboratory and the machine shop and the floor in those locations was observed to be intact. Because the floor of the hazardous materials storage trailer was obstructed by various containers of hazardous materials, VERTEX identified this location as a REC. VERTEX collected and analyzed a soil sample west of the trailer and a groundwater sample from a location east and hydraulically downgradient of the trailer to assess for the potential presence of OHM releases to the environment. The samples were analyzed for:

- VOCs by USEPA Method 8260;
- SVOCs by USEPA Method 8270;
- TPH by USEPA Method 8100;
- MCP 14 metals[2] by USEPA Method series 6000 and 7000;
- PCBs by USEPA Method 8082 with Soxhlet extraction;

[2] MCP 14 metals are the 14 metals for which the MCP provides method 1 cleanup standards and are antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc

- Ignitability, corrosivity, reactivity (cyanide/sulfide), and Specific conductance (soil sample only);
- Ammonia/Nitrogen by USEPA Method SM 19-22 (groundwater sample only);
- Chloride, nitrite, and nitrate by USEPA Method 300 (groundwater sample only);
- Total nitrogen by USEPA Method SM 19-22 (groundwater sample only); and
- Phosphorus/orthophosphate by USEPA Method SM 21-22.

The results did not exceed the MCP RCS-1 or RCGW-1 Reportable Concentrations.

2.4.4 Former Underground Storage Tanks

The Phase I ESA historical records review identified the historical presence of four former underground storage tanks (USTs), formerly located north of the Route 20 Septage Facility Building. The four former USTs ranged in capacity from 1,000 to 4,000 gallons and were used to store diesel fuel, No. 2 fuel-oil, and ferric-chloride. Based on Wayland Fire Department files, the USTs were removed in 1998; however, no soil screening or soil analytical data associated with the removal was available. VERTEX advanced five soil borings, including one groundwater monitoring well within the area of the former USTs. Four soil samples and one groundwater sample were collected and submitted for laboratory analysis of TPH and soil disposal characterization parameters. OHM was not detected at concentrations exceeding the applicable MCP Reportable Concentrations.

2.4.5 Groundwater Impacts from Sudbury Landfill

Investigation

The Phase I ESA historical records review identified that the property was bordered to the west by a gravel pit from at least the 1940s until 1970 when the gravel pit was converted into the Sudbury Landfill. The Sudbury Landfill remained in operation until 1996 and was capped in 2005. During a subsurface investigation completed by others in 2015 total arsenic was detected in monitoring wells installed hydraulically upgradient and adjacent to the property, on a portion of land between the Sudbury Landfill and the property. Total arsenic includes both dissolved and undissolved arsenic; however, MCP Reportable Concentrations apply only to dissolved arsenic;

therefore, the detection was not considered a reportable condition but may be indicative of dissolved arsenic in groundwater from the landfill at concentrations exceeding the MCP Reportable Concentrations.

In March 2019, VERTEX installed six groundwater monitoring wells to evaluate groundwater conditions throughout the property and collected groundwater samples that were submitted to Con-Test for the following analyses:

- VOCs USEPA Method 8260;
- SVOCs by USEPA Method 8270;
- Total MCP 14 metals, total manganese, and total copper by USEPA Method series 6000 and 7000;
- PCBs by USEPA Method 8082;
- Ammonia/Nitrogen by USEPA Method SM 19-22;
- Chloride, nitrite, and nitrate by USEPA Method 300;
- Total nitrogen by USEPA Method SM 19-22;
- Phosphorus/Orthophosphate by USEPA Method SM 21-22; and
- Dissolved arsenic and dissolved nickel by USEPA Method 6020B.

Results

Dissolved arsenic was detected in the groundwater sample collected from monitoring well V-102 (MW) at a concentration exceeding the MCP RCGW-1 Reportable Concentration. Ammonia was detected in groundwater samples collected from wells V-101 (MW), V-102 (MW), V-105 (MW), and V-106 (MW) at concentrations exceeding the MCP RCGW-1 Reportable Concentration. Dissolved nickel was detected in well V-106 (MW) at a concentration, exceeding the applicable MCP RCGW-1 Reportable Concentration. The concentrations of no other parameters exceeded MCP Reportable Concentrations in the March 2019 samples. A summary of the groundwater analytical results is presented in Table 4.

Based on a review of historical environmental reports, dissolved metals have been historically detected in groundwater at the abutting upgradient Sudbury Landfill at concentrations also exceeding the MCP RCGW-1 Reportable Concentrations. Furthermore, the highest concentrations of metals and ammonia were detected in hydraulically upgradient portions of the property. Therefore, these detected concentrations have been attributed to migration from the

Sudbury Landfill and VERTEX anticipates that a Downgradient Property Status (DPS) Opinion will be submitted to the MassDEP in accordance with section 40.0180 of the MCP. Upon completion of a Draft DPS Opinion, the report will go through the PIP process to allow for public comment and discussion.

To assess whether the dissolved metals and ammonia detected in groundwater samples could pose an ecological risk to the abutting wetlands, VERTEX compared the detected concentrations to the MCP Method 1 GW-3 groundwater standards (section 40.0974(2) of the MCP), which applies to all groundwater in the Commonwealth of Massachusetts and are intended to be protective of surface water from the potential adverse ecological affects resulting from discharge of OHM in groundwater to surface water.

As shown in the table below, concentrations of dissolved arsenic and nickel do not exceed their respective Method 1 GW-3 standards. However, the MCP does not establish a GW-3 standard for ammonia.

WELL ID	MCP GW-3 STANDARD	UNITS	MW-3	V-101 (MW)	V-102 (MW)	V-103 (MW)	V-104 (MW)	V-105 (MW)	V-106 (MW)
SAMPLE DATE			4/2/2019	4/1/2019	4/1/2019	4/2/2019	4/2/2019	4/1/2019	4/2/2019
Arsenic (Dissolved)	900	µg/L	0.74	0.98	26	0.74	0.79	1.1	1.0
Nickel (Dissolved)	200	µg/L	-	-	-	-	-	-	110
Ammonia	NS	µg/L	ND (300)	1,500	1,500	ND (300)	ND (300)	1,100	2,000

Note: µg/L represents the measurement of micrograms per liter.

In accordance with MassDEP guidance documents, VERTEX calculated an equivalent groundwater protection criterion for ammonia to assess whether concentrations of ammonia detected in groundwater samples would pose a significant ecological risk if the groundwater were to discharge to surface water. The equivalent groundwater protection criterion was calculated using equations provided in MCP Numerical Standards by MassDEP (reformatted December 2017). Based on calculations using the lowest and most protective dilution factors, the equivalent groundwater criterion for ammonia was calculated to be 47,500 µg/L.

Because concentrations of ammonia detected in groundwater samples are well below the calculated groundwater criterion of 47,500 µg/L, VERTEX does not anticipate adverse ecological effects to the abutting wetlands as a result of the ammonia impacts originating from the Sudbury Landfill.

The proposed construction of an on-site stormwater and treated wastewater infiltration system may cause localized groundwater mounding near the area of infiltration during significant rain events. However, the mounding will not result in any adverse effects from the ammonia and dissolved metals in groundwater because the detected concentrations of the ammonia and metals are well below applicable standards for the protection of surface water and ecological receptors, and no exacerbation of the extent these metals and ammonia is anticipated. Additional water infiltration will further disperse and dilute the low-level metal and ammonia concentrations within and downgradient of the property.

2.4.6 Methane Impacts from Sudbury Landfill

Investigation

In April 2019, VERTEX installed six soil vapor sample points and collected soil vapor samples throughout the property. A four-gas meter was calibrated with a methane standard to provide readings of flammable gas readings as methane equivalents. Four-gas meter readings are not considered actual methane concentrations in soil vapor but are useful indicators of relative methane concentrations. Soil vapor samples were also collected using 6-liter batch-certified Summa canisters and submitted to Con-Test for analysis of methane by USEPA Method 3C.

Results

Field screening with the four-gas meter detected flammable gas concentrations ranging from 1% of the lower explosive limit (LEL) to 10% of the LEL. However, these readings were detected almost immediately after the four-gas meter was connected to the sample points and dissipated to 0% after less than one-minute. Laboratory analysis of soil vapor samples collected from the

sampling points did not detect methane. A summary of soil vapor analytical results is presented on Table 5.

2.5 Current Proposed Response Actions

On January 8, 2021, on behalf of Alta, VERTEX submitted a Release Abatement Measure (RAM) Plan to the MassDEP. The RAM Plan provides details regarding the existing conditions at the property, and the assessment activities that were completed to date. The RAM Plan also indicates the environmental response actions that are to be completed at the property to address the OHM detected in soil at concentrations above MassDEP standards. A summary of the response actions to be completed is included below:

- 32,000 cubic yards stockpile
    - Based on the soil samples collected in 2019, as described in section 2.4.1, appropriate and licensed off-site soil reuse, recycling, and disposal facilities have been identified and the soil meeting each facilities acceptance criteria will be removed from the Site and transported to the selected facilities. The shipments will be accompanied by the appropriate paperwork (Material Shipment Records [MSRs] or Bills of Lading [BOLs]) to track the volume of soil that is taken to each facility and records of the shipments will be submitted to the MassDEP.
    - VERTEX will be on-site to provide the appropriate paperwork to the trucks, track the soils to make sure the correct, pre-characterized soil is going to the correct facility, and monitor dust at the work perimeters to document that dust levels are remaining below the dust action level specified in the RAM Plan. If elevated dust levels approach the action level, dust control measures such as water spraying, covering areas not being actively works, or if necessary, suspension of work will be initiated until such time that dust levels no longer exceed the acceptable limits.
    - One cell within the stockpile (Cell E7) where extractable lead was detected above the United States Resource Conservation and Recovery Act (RCRA) criteria will

require stabilization prior to transport and disposal off-site. This will be completed by mixing in a stabilization compound with the soil where the extractable lead was detected. VERTEX will oversee stabilization activities and collect additional soil samples to confirm that the lead was appropriately stabilized.

- Firing Range
    - Based on the soil analyses conducted in 2019, as described in section 2.4.2, concentrations of metals (antimony, copper, and lead) exceeding MCP Reportable Concentrations were detected in the soils of the former firing range. Based on the concentrations of metals detected, this soil will be excavated and transported off-site to a hazardous waste landfill.
    - Prior to excavation and transport, based on the detected concentrations of extractable lead, the soil will need to be stabilized. This will be completed by mixing in a stabilization compound with the metal impacted soil. VERTEX will oversee stabilization activities and collect additional soil samples to make sure that the metals were appropriately stabilized. Groundwater samples will also be collected form locations hydraulically upgradient and downgradient of the landfill to monitor groundwater conditions before, during, and after stabilizations.
    - VERTEX will oversee soil stabilization, sampling, and excavation activities and document that dust levels remain below the dust action level specified in the RAM Plan. If elevated dust levels approach the action level, dust control measures such as water spraying, covering of areas not being actively worked, or if necessary, suspension of work will be initiated until such time the dust levels no longer exceed the acceptable limits.

2.6 Public Involvement History

2.6.1 RTN 3-34474

On October 12, 2017, CMG Environmental Services, Inc. (CMG), on behalf of the Town of Wayland, submitted an Immediate Response Action Plan outlining the steps to be undertaken in response to the discovery of asbestos in soil to the MassDEP. The Wayland Board of Health and Town Administrator were notified of the submittal in CMG correspondence dated October 9, 2017.

On December 28, 2020, the Town of Wayland received a petition from residents of the Town of Wayland requesting that the RTN 3-34474 Site be designated a PIP site in accordance with M.G.L. c. 21E § 14(a) and section 40.1404 of the MCP. On January 14, 2021, the Town of Wayland formally responded to the petition, designating the Site as a PIP site.

On January 26, 2021, CMG submitted an Immediate Response Action Completion and Permanent Solution Report to the MassDEP on behalf of the Town of Wayland. The Wayland Board of Health and Town Administrator were notified of the submittal by CMG in correspondence dated January 26, 2021. However, as this report was submitted following the designation of the Site as a PIP site, this report is available for public comment under the regulations summarized in section 5.3.

2.6.2 RTN 3-36013

On December 2, 2020, CMG submitted a Phase I Initial Site Investigation Report and Tier Classification Report to the MassDEP on behalf of the Town of Wayland. The Wayland Board of Health and Town Administrator were notified of the submittal by CMG correspondence dated December 2, 2020. The legal notice for the Tier Classification was submitted for publication in the Wayland Town Crier and was printed on December 10, 2020.

On December 28, 2020, the Town of Wayland received a petition from residents of the Town of Wayland requesting that the Site be designated a PIP site in accordance with M.G.L. c. 21E § 14(a) and 310 CMR 40.1404. On January 14, 2021, the Town of Wayland formally responded to the

petition, designating the RTN 3-36013 Site as a PIP site. On February 22, 2021, the property was purchased by Alta River's Edge, LLC. Subsequently, on behalf of Alta River's Edge, LLC, VERTEX prepared a Draft PIP and initiated public involvement activities in accordance with the MCP requirements for PIP sites. In developing this PIP, VERTEX solicited input from the petitioners on their concerns relative to environmental issues at the Site. A summary of feedback received from the community members is presented in Appendix A.

3.0 THE MCP TIMELINE

The MCP describes the required assessment and clean up objectives and criteria, reporting requirements, and compliance deadlines to address OHM releases to the environment. Releases and threats of releases of OHM to the environment that meet or exceed applicable MCP criteria for MassDEP notification must be reported to MassDEP. The MassDEP then assigns a Release Tracking Number (RTN) to the reported condition. By the one-year anniversary of MassDEP notification a Phase I Initial Site Investigation (ISI) Report and Tier Classification must be submitted to the MassDEP. The Phase I ISI report provides information regarding the location of the release, potential receptors of the release, and potential pathways for release migration. The Tier Classification classifies the release as either a Tier 1 or Tier 2 release base on a list of inclusionary criteria and the Tier classification is used by the MassDEP to assess annual compliance fees. The Site was classified as a Tier 1 Site for both RTN 3-34474 and RTN 3-36013 because remedial actions were required as part of an Immediate Response Action, and the property is located in areas mapped as a Medium and High Yield Aquifers. After submittal of the Phase I ISI and Tier Classification the environmental response actions process proceed to:

- Phase II Comprehensive Response Actions – A Phase II Comprehensive Site Assessment (CSA) Report is required to be submitted to the MassDEP no later than 3 years from the submittal of the Phase I ISI report. The Phase II CSA report must include a description of the nature and full extent of the OHM release, the fate and transport characteristics of the OHM in the environment, and a characterization of the risk posed by the release to human health, public welfare, safety and the environment.;

- Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives – A Phase III Remedial Action Plan (RAP) must be submitted to the MassDEP no later than 1 year after submittal of the Phase II CSA Report. The RAP identifies and evaluates remedial response action alternatives and presents the selected remedial action alternative that meets MCP criteria for being both economically and technically

feasible and will achieve a Permanent Solution and a Condition of No Significant Risk if feasible, or a Temporary Solution of No Substantial Hazard, and

- Phase IV Implementation of the Selected Comprehensive Remedial Alternative – A Phase IV Remedial Implementation Plan (RIP) describing the schedule for implementing the selected remedial action, all federal, state, and local permits necessary to implement the plan, an engineering design for the selected remedial plan, construction plans and specifications, a description of required operation and maintenance, an as-built construction report, and a Final Inspection Report.

- Phase V Operation, Maintenance and/or Monitoring (OM&M) of Comprehensive Response Actions – Phase V is the OM&M of the remedial system until such time a permanent Condition of No Significant Risk is achieved. Periodic status reports must be submitted to the MassDEP during Phase V and a Permanent Solution must be attained within 5 years of MassDEP release notification or the Tier Classification must be extended.

At any point in this process, if the criteria for achieving a "Permanent Solution" is achieved, then a Permanent Solution Statement may be filed with sufficient evidence demonstrating that a condition of No Significant Risk of harm to human health, public safety and welfare, and the environment as defined by the MCP exists.

Each step of the remedial response action process, as outlined above, involves the development of work plans and field or design work, followed by reports describing the results of the work and recommendations for next steps if warranted.

4.0 PUBLIC CONCERNS

Following the transfer of ownership of the property to Alta, VERTEX reached out to those who signed the PIP petition, the Town of Wayland Board of Health, Conservation Commission, and Town Administrator, and the Town of Sudbury Board of Health, Conservation Commission, and Town Administrator for comments regarding environmental response actions at the property. These discussions helped identify the PIP Group's key concerns regarding the environmental response actions at the property, as summarized below and in Appendix A.

Members of the PIP Group expressed concerns regarding potential adverse environmental impacts to the Sudbury River and abutting wetlands. Concerns were also voiced by the PIP Group regarding the possible effects the planned on-site leaching field and stormwater infiltration system may have on the extent of the OHM detected in groundwater. Additionally, the majority of the signers of the PIP petition expressed a desire that documents regarding the MCP response actions at the property be made widely available for public review and comment at a designated online repository. These concerns coincided with the desire to stay informed about the environmental response actions to be completed at the property.

5.0 PUBLIC INVOLVEMENT

In accordance with section 40.1400 of the MCP, the purpose of public involvement in environmental response actions at OHM release sites is:

- To inform the public about risks posed by the Site, the status of the remedial response actions, and the opportunities for public involvement, and
- To solicit the concerns of the public about the Site and remedial response actions so that these concerns can be addressed and incorporated in planning remedial response actions.

To meet each of these objectives, VERTEX on behalf of Alta River's Edge, LLC, proposes to undertake specific activities during the remedial response actions at the Site. These activities are described below.

5.1 Informing the Public

VERTEX will provide site-specific information to the public through:

- The establishment of a publicly accessible online information repository;
- The development and maintenance of a mailing list that will include all identified persons to whom information about MCP response actions will be distributed; and
- Providing advance notification to local officials and residents as required by the MCP about notable MCP response actions, and/or opportunities for public involvement (see Section 5.3).

5.1.1 Information Repositories

MassDEP Local Office

A Site file is maintained at the Northeast Regional MassDEP Office at 205B Lowell Street in Wilmington, Massachusetts. The file contains publicly available documents pertaining to the Site. Files can be viewed online using MassDEP's online Waste Site/Reportable Release file viewer at the following links:

- https://eeaonline.eea.state.ma.us/portal#!/wastesite/3-0036013
- https://eeaonline.eea.state.ma.us/portal#!/wastesite/3-0034474

After restrictions surrounding the current COVID-19 pandemic are relaxed, pertinent files can also be reviewed in person at the Northeast Regional MassDEP Office. Requests for reviews can be made by contacting the Wilmington office at (978-694-3200).

VERTEX Hosted Information Repository

VERTEX has established an online information repository to provide residents with easy access to information about the Site cleanup process and results of Site investigations. The designated River's Edge repository contains copies of files submitted to MassDEP under RTN 3-36013 and RTN 3-34474 by both VERTEX and previous environmental consultants. Documents included on this repository will include:

- This draft Public Involvement Plan and the finalized Plan when it is complete;
- Technical reports and documents summarizing results and recommendations;
- Relevant correspondence with the Town and the MassDEP;
- Public meeting summaries;
- Summaries of public comments received and responses to the comments; and
- Copies of public notices about the Site.

Information regarding the MCP Site will continue to be uploaded to the designated River's Edge repository as it is developed. The information repository for the Site is located at:

- https://vertexeng.com/rivers-edge-public-involvement-plan-public-repository/

Hard-Copy Local Repository

After restrictions surrounding the current COVID-19 pandemic are relaxed, pertinent files will be kept at the Wayland Public Library located at 5 Concord Road in Wayland, Massachusetts. Once this repository is established, a notice will be sent to the established mailing list. Prior to the

establishment of this repository, hard copies of relevant documents can be requested by contacting Kristen Sarson at 617-275-5407 or ksarson@vertexeng.com.

5.1.2 Site Mailing List

Following Alta's purchase of the property, using information provided to VERTEX by the Town of Wayland, VERTEX established a preliminary master mailing list for the Site. The Site mailing list, a copy of which is included in Appendix B, includes the petitioners who signed the December 28, 2020 petition to establish a PIP and the heads of the Wayland Board of Health, Department of Public Works, Planning Board, Wastewater Management District, Surface Water Quality Commission, River's Edge Advisory Committee, Conservation Commission, and the Town Administrator, and the Town of Sudbury Board of Health, Conservation Commission, and Town Administrator. Anyone who wishes to be added or deleted from the mailing list can contact Kristen Sarson at the address listed below. The mailing list will be used to announce upcoming public meetings, distribute fact sheets, notices of public comment periods on and the vailability of documents in the information repositories, and other information about the MCP Site. In addition, interested parties may request a paper copy of the PIP-related documents by contacting Kristen Sarson.

Anyone wishing to be added to or removed from the mailing list can contact:

Kristen Sarson
Project Manager
The Vertex Companies, Inc.
100 North Washington Street, Suite 302
Boston, MA 02114
617.275.5407
ksarson@vertexeng.com

5.2 Notification to Local Officials and Residents of Major Milestones and Events

Section 40.1401 of the MCP requires community notification of major planning and implementation milestones at regulated sites following the designation of the Site as a PIP Site. Major planning and implementation milestones include, but are not limited to, field work

involving the implementation of Immediate Response Actions for Imminent Hazards, the implementation of Release Abatement Measures (RAM), the use of respirators, residential sampling, the completion of a phase of the remediation process, and Permanent Solution Statements. At this Site the future major planning and implementation milestones that will require community notification and for which a public meeting and an opportunity for public review and comment will be provided are expected to include:

- Draft PIP;
- Draft MCP Phase Reports indicating that response actions have proceeded into the next Phase as described in section 1.5 of this PIP;
- Draft Release Abatement Measure (RAM) Plan Modifications;
- Draft Release Abatement Measure (RAM) Completion Statement;
- Draft Permanent Solution Statement for RTN 3-36013; and,
- Draft Downgradient Property Status (DPS) Opinion.

These are referred to as draft "milestone" reports. Public notices regarding the submittal of final documents to the MassDEP will also be prepared and posted in the information repository. All final documents submitted to the MassDEP will be available in the information repository and in the MassDEP online file viewer. Notices of submission of final MCP Phase reports will include a summary of the report's conclusions and information on where the report can be reviewed. A list of those to be notified is included in Appendix B.

The MCP also requires public notification prior to undertaking any of the following activities, which are not anticipated at this Site. If any of these activities are necessary, the public will be informed as described above:

- The implementation of Immediate Response Actions (IRAs) for Imminent Hazards;
- The use of respirators or level A, B, or C protective clothing;
- Residential sampling; and

- The start of field work involving Phase IV remedial additives.

The MCP also requires opportunity for public comment on the following types of draft reports, which are not anticipated at this Site. If any of these draft reports are prepared, there will be an opportunity for public review and comment in accordance with the MCP before the reports are submitted to the MassDEP:

- Immediate Response Action (IRA) Completion Reports;
- Reports indicating that remediation has progressed to the next phase;
- Temporary Solution Statements; and
- Activity Use Limitations (AULs).

5.3 Soliciting Public Input

VERTEX will provide opportunities for public input regarding Site environmental response actions by presenting draft milestone reports in public meetings. Following each public meeting in which a draft milestone report is presented there will be public comment period to provide additional opportunities for oral and written input regarding Site decisions. VERTEX will prepare summaries of all comments received during public comment periods and will provide a response to comments within 60-days following the close of the comment period. Additional information regarding the regulations surrounding each of these public involvement opportunities is summarized in the following sections.

5.3.1 Public Meetings

The purpose of the public meetings is to update the PIP Group, community officials, and the general public about the progress regarding MCP environmental response actions at the Site and environmental conditions related to the MCP regulated issue, draft findings and conclusions, and anticipated next steps. The public meetings and subsequent public comment periods provide an opportunity for public comment on response action plans for the Site.

VERTEX will publish a public notice in Wayland Weston Town Crier at least 14 days in advance of a public meeting, will send mail or email notices announcing public meetings to individuals on the Site mailing list, upload the notices to the MassDEP Site file, and will post the notices in the information repository. VERTEX will also prepare meeting summaries, submit the summaries to MassDEP, and place a copy of the summaries in the local information repository.

5.3.2 Public Comment Periods

In addition to hosting public meetings, VERTEX will provide specific opportunities for the public to submit comments on draft milestone MCP response action submittals for the Site. When draft milestone documents are available, copies will be uploaded to the designated River's Edge repository, and a notice of their availability will be sent to those on the Site mailing list. The notice will include the title of the document, where it is available for review, and information about how to submit written comments to VERTEX. The duration of each comment period will be a minimum of 20 calendar days following the public meeting; however, the public may request extensions to comment periods (to a maximum of 40 calendar days). Requests for extension of public comment periods should be submitted to VERTEX or the MassDEP.

If the nature of a hazard dictates that response actions must be performed immediately, with MassDEP review and approval, comment periods for response actions may be reduced or eliminated. VERTEX will provide copies of documents related to such immediate actions to the designated River's Edge repository and the MassDEP Site file and will notify the Site mailing list of the availability of the documents.

VERTEX anticipates that the milestone documents, as described in Section 5.2, that will be available for public comment will include:

- Draft PIP;
- Draft MCP Phase Reports indicating that response actions have proceeded into the next Phase as described in section 1.5 of this PIP;
- Draft Release Abatement Measure (RAM) Plan Modifications;

- Draft Release Abatement Measure (RAM) Completion Statement;
- Draft Permanent Solution Statement for RTN 3-36013; and,
- Draft Downgradient Property Status (DPS) Opinion.

5.3.3 Response to Comments

VERTEX will summarize the comments received during the public comment period and will include the summary and VERTEX's responses in the final reports. A copy of the comment summary and responses will also be sent by mail to those who submitted comments and will be uploaded to the designated River's Edge repository and the MassDEP Site file. VERTEX will also send a notice of availability of the response summary to those on the mailing list.

6.0 SCHEDULE FOR PUBLIC INVOLVEMENT

Appendix C provides a schedule of the public involvement activities listed in Section 5.0. The schedule specifies the milestones during the response actions when public involvement activities will be conducted.

7.0 RESPONSIBILITY FOR PUBLIC INVOLVEMENT PLAN

Alta is responsible for conducting the public involvement activities at the Site. In that capacity VERTEX has developed this Draft Public Involvement Plan on behalf of Alta to solicit public comment, after which a final PIP will be prepared and distributed according to the procedures outlined in Section 4.0.

To ensure that Public Involvement Plans are being properly implemented, the MassDEP has established an appeal process, described briefly below, for handling disputes regarding public involvement activities. The appeal process is initiated when ten or more residents within the community of which the Site is located submit a signed petition to Alta and the MassDEP. The petition should state that Alta is not implementing activities that were agreed to upon the Final PIP, and detail specific information demonstrating failure to implement the pertinent sections of the PIP.

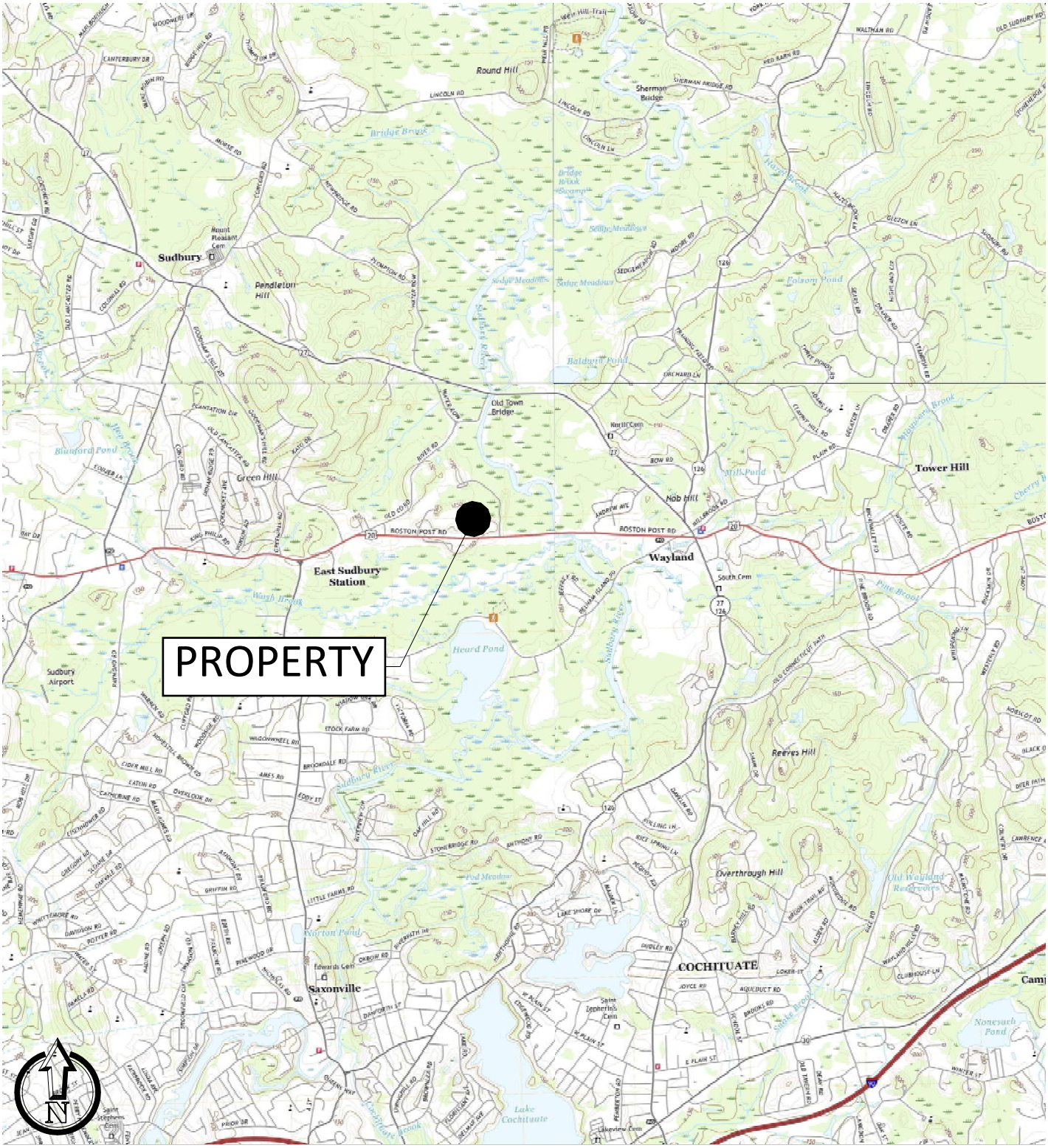
Upon receipt of the appeal petition, it is Alta's responsibility to provide a written confirmation of receipt to the petitioners. Alta would then have 20 calendar days to address the petitioners' concerns, respond to the petition in writing, and describe how the concerns will be addressed. Changes must be reflected in a revised PIP, for which a twenty-day public comment period will be held in accordance with Section 8.0.

If the public concerns regarding the implementation of the PIP remain unaddressed within the 20 calendar days, petitioners may submit written information to the MassDEP documenting concerns, any actions taken to date to resolve the identified issues, and reasons why these issues have not been sufficiently addressed. Upon receipt of the information, MassDEP will conduct a review and determine the next best steps forward.

8.0 REVISIONS TO PUBLIC INVOLVEMENT PLAN

This PIP may be revised as necessary during the course of the MCP response action process. If revisions are proposed, VERTEX will upload a summary of the proposed changes to the designated River's Edge repository and will send a notice of the availability of the proposed changes to those on the mailing list. A 20-day public comment period will follow notice of availability regarding the revised PIP Plan. VERTEX will review the comments received and revise the Plan as appropriate. The final revised Plan will be placed in the information repository.

FIGURES



0 4,000 8,000 12,000

SCALE: 1" = 4,000 feet
(WHEN PRINTED AT 8x11)

SOURCE: UNITED STATES GEOLOGICAL SURVEY MAP FRAMINGHAM MA QUADRANGLE 7.5 MINUTE SERIES (2018)

PROPERTY LOCUS

RIVER'S EDGE
484 - 490 Boston Post Road
Wayland, Massachusetts

Date:	03/09/2021
Drawn:	KS
Checked:	FC
Job No.:	67404

FIGURE 1

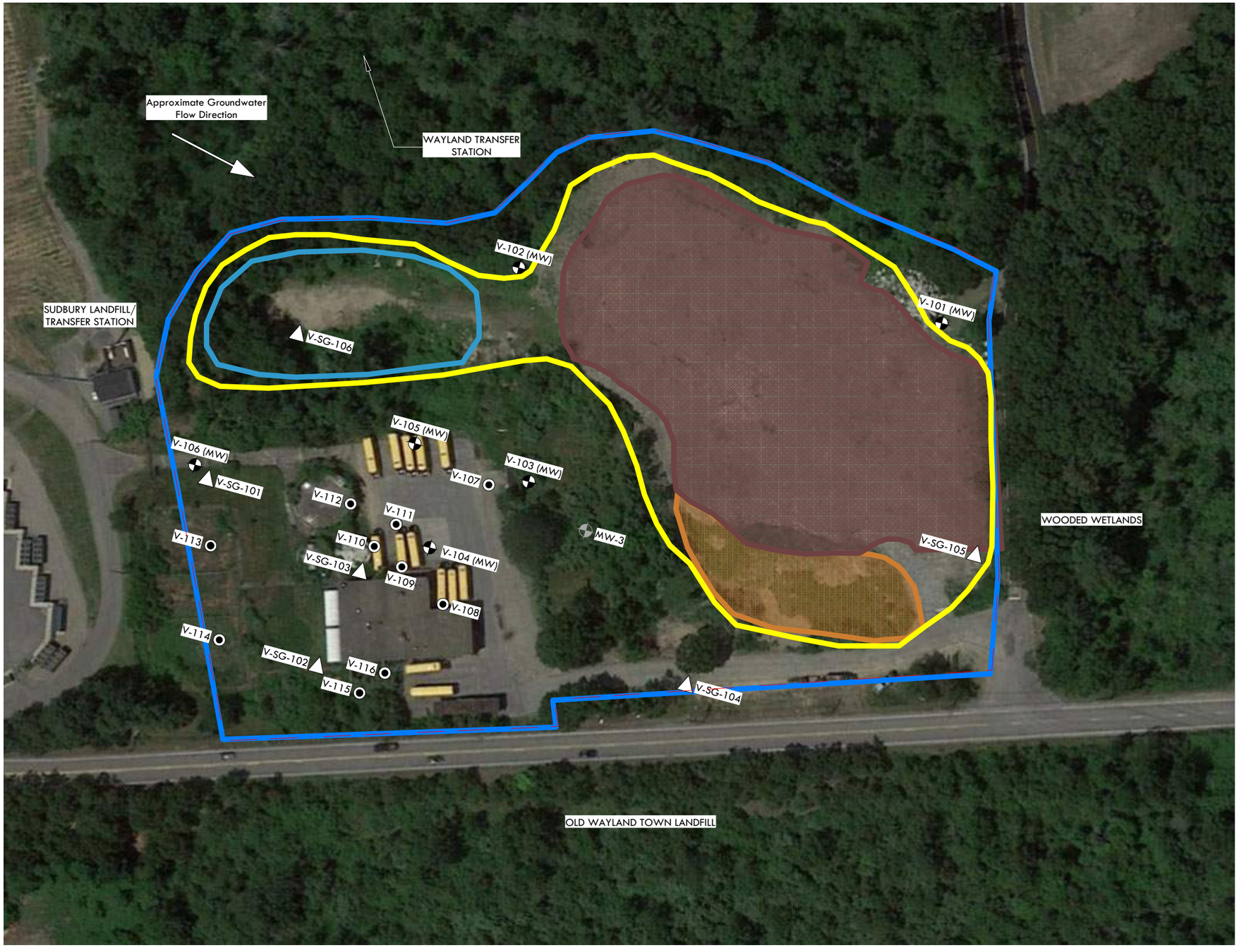
VERTEXENG.COM

VERTEX
100 N WASHINGTON ST, 302
BOSTON, MA 02114
617.275.5407

LEGEND:

- V-103 (MW) — VERTEX Monitoring Well
- V-113 — Soil Boring
- MW-3 — Monitoring Well Installed by Others
- V-SG-101 — Soil Vapor Sample Point

- 32,000 cy Stockpile Material Management Area
- Approximate Configuration of 4,500 cy Stockpile
- Former Firing Range Material Management Area
- Approximate Site Boundary
- RAM Area
- RTN 3-36013 Boundary



N

0 100 200 300

SCALE: 1" = 100'-0"
(WHEN PRINTED AT 11"x17")

SITE SCHEMATIC				REVISIONS
RIVER'S EDGE 484 - 490 BOSTON POST ROAD WAYLAND, MA	Date: 11/19/2020 Drawn: KS Checked: FC Job No.: 67404	FIGURE 2		

VERTEX
100 N WASHINGTON ST, STE 302
BOSTON, MA 02114
617.275.5407
VERTEXENG.COM

LEGEND:

B3 Test Pit Grid Number

SVOCs Dectected Above RCS-1 Reportable Concentrations

Total Lead Detected Above RCS-1 Reportable Concentrations

Approximate Configuration of 32,000 cy Stockpile

Test Pit Location
TP-V-101

Approximate Configuration of 4,500 cy Stockpile

N

0 50 100 150

SCALE: 1" = 50'-0"
(WHEN PRINTED AT 11x17)

SOIL STOCKPILE CLASSIFICATION

RIVER'S EDGE
484-490 BOSTON POST ROAD
WAYLAND, MA
RTN 3-36013

Date: 03/09/21
Drawn: KS
Checked: FC
Job No.: 67404

FIGURE 3

REVISIONS

VERTEX
100 N WASHINGTON ST, STE 302
BOSTON, MA 02114
617.275.5407
VERTEXENG.COM

LEGEND:

45.5 — XRF Reading (ppm)

V-201 — Grid Sampled (April 11, 2019)

Approximate Area With Lead > MCP RCS-1*

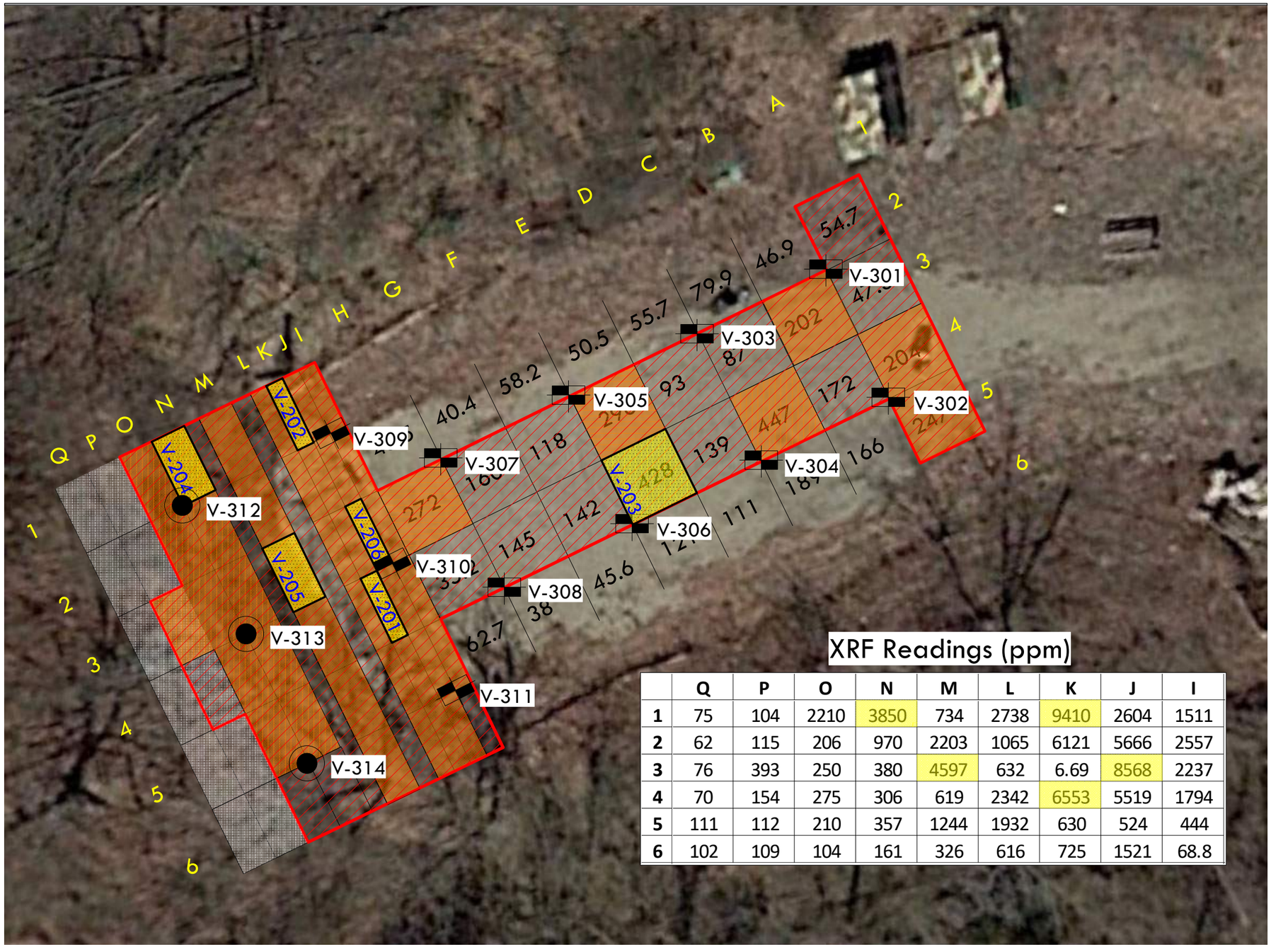
Lead Vertical Delineation Sample

V-311 (Soil Boring) V-301 (Test Pit)

V-301 through V-308 (2-4 feet bgs)
V-309 through V-311 (0-2 feet bgs)
V-312 through V-314 (2-4 feet bgs)

Approximate Area Proposed For Stabilization and Disposal

MCP RCS-1 = Massachusetts Contingency Plan reportable concentrations for soil.



XRF Readings (ppm)

	Q	P	O	N	M	L	K	J	I
1	75	104	2210	3850	734	2738	9410	2604	1511
2	62	115	206	970	2203	1065	6121	5666	2557
3	76	393	250	380	4597	632	6.69	8568	2237
4	70	154	275	306	619	2342	6553	5519	1794
5	111	112	210	357	1244	1932	630	524	444
6	102	109	104	161	326	616	725	1521	68.8

N

0 15 30 45

SCALE: 1" = 15'-0"
(WHEN PRINTED AT 11x17)

FIRING RANGE ASSESSMENT

RIVER'S EDGE
484 - 490 BOSTON POST ROAD
WAYLAND, MA

File No.:
Date: 10/08/20
Drawn: KS
Checked: FC
Job No.: 67404

FIGURE 3

REVISIONS

VERTEX
100 N WASHINGTON ST, STE 302
BOSTON, MA 02114
617.275.5407
VERTEXENG.COM

TABLES

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-A1	TP-A1	TP-A2	TP-A2	TP-A3	TP-A3	TP-A4	TP-A4	TP-A5	TP-A5	TP-B1	TP-B1	TP-B2
Sample ID			TP-A1 (0-5)	TP-A1 (5-10)	TP-A2 (0-5)	TP-A2 (5-10)	TP-A3 (0-5)	TP-A3 (5-10)	TP-A4 (0-5)	TP-A4 (5-10)	TP-A5 (0-5)	TP-A5 (5-10)	TP-B1 (0-5)	TP-B1 (5-10)	TP-B2 (0-5)
Sample Date			3/12/2019	3/12/2019	3/12/2019	3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Asbestos															
CARB 435	NSE	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromatic Hydrocarbons (PAHs)															
C09-C18 Aliphatic Hydrocarbons	1000	mg/kg	--	--	--	--	--	--	ND(23)	ND(23)	ND(22)	ND(23)	--	--	--
C11-C22 Aromatic Hydrocarbons	1000	mg/kg	--	--	--	--	--	--	190	290	280	300	--	--	--
C19-C36 Aliphatics	3000	mg/kg	--	--	--	--	--	--	140	210	220	190	--	--	--
Total Petroleum Hydrocarbons (TPH)															
TPH	1000	mg/kg	440	530	410	590	790	940	1000	1000	1400	1300	760	480	300
Volatile Organic Compounds (VOCs)															
Total VOCs	NSE	mg/kg	ND(0.17)	0.0019	ND(0.18)	ND(0.17)	ND(0.18)	ND(0.16)	ND(0.16)	ND(0.19)	ND(0.21)	ND(0.19)	ND(0.092)	0.0045	ND(0.17)
Semivolatile Organic Compounds (SVOCs)															
Benzo(a)Pyrene	2	mg/kg	0.72	0.40	ND(0.76)	1.4	1.2	1.2	1.5	1.5	1.5	2.0	0.82	1.4	0.72
Benzo(b)Fluoranthene	7	mg/kg	0.84	0.45	0.77	1.6	1.5	1.3	1.7	1.8	1.8	2.5	1.0	1.6	0.86
Benzo(g,h,i)Perylene	1000	mg/kg	0.44	0.26	ND(0.76)	0.76	0.80	ND(0.96)	ND(0.96)	1.1	0.93	1.2	0.43	0.98	0.57
Benzo(k)Fluoranthene	70	mg/kg	ND(0.39)	ND(0.20)	ND(0.76)	0.64	ND(0.77)	ND(0.96)	ND(0.96)	ND(0.98)	ND(0.78)	ND(0.98)	0.43	ND(0.92)	0.34
Chrysene	70	mg/kg	0.66	0.39	ND(0.76)	1.3	1.2	1.2	1.4	1.3	1.4	1.9	0.80	1.4	0.74
Dibenzo(a,h)Anthracene	0.7	mg/kg	ND(0.39)	ND(0.20)	*ND(0.76)*	ND(0.36)	*ND(0.77)*	*ND(0.96)*	*ND(0.96)*	*ND(0.98)*	*ND(0.78)*	*ND(0.98)*	ND(0.38)	*ND(0.92)*	ND(0.19)
Dibenzofuran	100	mg/kg	ND(0.77)	ND(0.39)	ND(1.5)	ND(0.72)	ND(1.5)	ND(1.9)	ND(1.9)	ND(2.0)	ND(1.6)	ND(2.0)	ND(0.76)	ND(1.8)	ND(0.38)
Fluoranthene	1000	mg/kg	1.3	0.62	0.94	2.3	2.4	1.9	2.8	2.5	3.2	3.8	1.1	2.4	1.3
Fluorene	1000	mg/kg	ND(0.39)	ND(0.20)	ND(0.76)	ND(0.36)	ND(0.77)	ND(0.96)	ND(0.96)	ND(0.98)	ND(0.78)	ND(0.98)	ND(0.38)	ND(0.92)	ND(0.19)
Indeno(1,2,3-cd)Pyrene	7	mg/kg	0.43	0.27	ND(0.76)	0.81	ND(0.77)	ND(0.96)	ND(0.96)	1.1	0.95	1.3	0.45	ND(0.92)	0.55
Naphthalene	4	mg/kg	ND(0.39)	ND(0.20)	ND(0.76)	ND(0.36)	ND(0.77)	ND(0.96)	ND(0.96)	ND(0.98)	ND(0.78)	ND(0.98)	ND(0.38)	ND(0.92)	ND(0.19)
Phenanthrene	10	mg/kg	0.56	0.28	ND(0.76)	1.1	1.3	1.2	1.6	1.3	2.7	2.3	0.49	1.7	0.80
Pyrene	1000	mg/kg	1.4	0.75	1.3	2.5	2.2	2.4	3.2	2.8	3.2	4.3	1.3	3.1	1.4
Total SVOCs	NSE	mg/kg	6.35	3.42	3.01	12.41	10.60	9.20	12.20	13.40	15.68	19.30	6.82	12.58	7.28
Metals															
Antimony	20	mg/kg	ND(1.8)	ND(1.9)	ND(1.8)	ND(1.7)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.8)
Arsenic	20	mg/kg	6.8	5.8	7.6	3.9	7.0	5.7	5.4	4.0	5.7	4.5	9.6	5.4	5.6
Barium	1000	mg/kg	37	31	34	37	36	30	33	34	40	34	34	31	32
Beryllium	90	mg/kg	0.33	0.38	0.38	0.33	0.26	0.26	0.29	0.28	0.28	0.28	0.36	0.35	0.32
Cadmium	70	mg/kg	0.51	0.38	0.47	0.29	0.45	0.38	0.39	0.30	0.45	0.41	0.50	0.33	0.41
Chromium	100	mg/kg	15	15	15	17	13	15	14	17	14	17	17	14	13
Lead	200	mg/kg	44	25	58	43	69	48	44	36	43	35	34	23	62
Mercury	20	mg/kg	0.051	0.029	0.048	0.032	0.042	0.039	0.095	0.044	0.055	0.054	0.034	ND(0.026)	0.054
Nickel	600	mg/kg	12	12	11	13	9.8	12	11	13	11	13	13	12	9.4
Selenium	400	mg/kg	ND(3.7)	ND(3.8)	ND(3.7)	ND(3.5)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.6)	ND(3.6)	ND(3.7)
Silver	100	mg/kg	ND(0.37)	ND(0.38)	ND(0.37)	ND(0.35)	ND(0.38)	ND(0.38)	ND(0.38)	ND(0.38)	ND(0.38)	ND(0.38)	ND(0.36)	ND(0.36)	ND(0.37)
Thallium	8	mg/kg	ND(1.8)	ND(1.9)	ND(1.8)	ND(1.7)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.8)
Vanadium	400	mg/kg	25	26	21	30	18	23	21	28	29	24	23	22	19
Zinc	1000	mg/kg	49	39	49	50	49	43	48	42	52	44	46	34	48

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484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-A1	TP-A1	TP-A2	TP-A2	TP-A3	TP-A3	TP-A4	TP-A4	TP-A5	TP-A5	TP-B1	TP-B1	TP-B2
Sample ID			TP-A1 (0-5)	TP-A1 (5-10)	TP-A2 (0-5)	TP-A2 (5-10)	TP-A3 (0-5)	TP-A3 (5-10)	TP-A4 (0-5)	TP-A4 (5-10)	TP-A5 (0-5)	TP-A5 (5-10)	TP-B1 (0-5)	TP-B1 (5-10)	TP-B2 (0-5)
Sample Date			3/12/2019	3/12/2019	3/12/2019	3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Polychlorinated Biphenyls (PCBs)															
Total PCBs	1	mg/kg	ND(0.091)	ND(0.093)	ND(0.091)	ND(0.085)	ND(0.090)	ND(0.086)	ND(0.087)	ND(0.091)	ND(0.090)	ND(0.089)	ND(0.089)	ND(0.087)	ND(0.090)
General Chemistry															
Ignitability	NSE	present/absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent
pH	NSE	pH Units	7.8	7.6	7.9	8.7	7.9	8.1	7.9	8.2	7.7	7.8	7.9	7.2	7.4
Reactivity Cyanide	NSE	mg/kg	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.0)	ND(3.9)	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.0)	ND(3.9)
Reactivity Sulfide	NSE	mg/kg	ND(20)	ND(19)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(19)	ND(20)	ND(20)
Solids, Total	NSE	%	ND(20)	ND(19)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(19)	ND(20)	ND(20)
Specific Conductance	2000	umhos/cm	12	13	13	37	14	21	20	24	23	20	16	9.0	11

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- Reportable Concentrations (RCS-1 & RCS-2) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceed applicable MCP RCS-1 Reportable Concentration
- Full analytical results are detailed in the laboratory analytical report

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-B2	TP-B3	TP-B3	TP-B4	TP-B4	TP-B5	TP-B5	TP-B6	TP-B6	TP-C1	TP-C1	TP-C2	TP-C2
Sample ID			TP-B2 (5-10)	TP-B3 (0-5)	TP-B3 (5-10)	TP-B4 (0-5)	TP-B4 (5-10)	TP-B5 (0-5)	TP-B5 (5-10)	TP-B6 (0-5)	TP-B6 (5-10)	TP-C1 (0-5)	TP-C1 (5-10)	TP-C2 (0-5)	TP-C2 (5-10)
Sample Date			3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10
Asbestos															
CARB 435	NSE	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromati															
C09-C18 Aliphatic Hydrocarbons	1000	mg/kg	--	ND(22)	--	--	--	--	--	ND(23)	--	--	ND(55)	ND(21)	--
C11-C22 Aromatic Hydrocarbons	1000	mg/kg	--	160	--	--	--	--	--	290	--	--	330	140	--
C19-C36 Aliphatics	3000	mg/kg	--	120	--	--	--	--	--	200	--	--	270	100	--
Total Petroleum Hydrocarbons (TPH)															
TPH	1000	mg/kg	510	1000	690	400	390	540	640	1100	660	900	1200	1200	930
Volatile Organic Compounds (VOCs)															
Total VOCs	NSE	mg/kg	ND(0.18)	ND(0.19)	ND(0.31)	ND(0.17)	ND(0.18)	ND(0.10)	ND(0.086)	ND(0.092)	ND(0.10)	ND(0.10)	ND(0.084)	ND(0.083)	ND(0.075)
Semivolatile Organic Compounds (SVOCs)															
Benzo(a)Pyrene	2	mg/kg	0.92	1.7	ND(0.69)	ND(0.92)	1.1	1.1	1.9	ND(0.98)	1.7	1.3	2.2	2.7	1.1
Benzo(b)Fluoranthene	7	mg/kg	1.1	2.0	ND(0.69)	ND(0.92)	1.5	1.4	2.6	1.0	2.2	1.5	2.5	3.2	1.1
Benzo(g,h,i)Perylene	1000	mg/kg	0.70	1.1	ND(0.69)	ND(0.92)	0.65	0.61	1.4	ND(0.98)	0.94	0.72	1.0	1.6	0.76
Benzo(k)Fluoranthene	70	mg/kg	0.40	ND(0.76)	ND(0.69)	ND(0.92)	0.59	0.51	ND(0.95)	ND(0.98)	ND(0.93)	0.57	0.95	1.2	0.42
Chrysene	70	mg/kg	0.88	1.7	ND(0.69)	ND(0.92)	1.2	1.1	2.2	ND(0.98)	1.4	1.2	2.2	2.9	1.1
Dibenzo(a,h)Anthracene	0.7	mg/kg	ND(0.37)	*ND(0.76)*	ND(0.69)	*ND(0.92)*	ND(0.20)	ND(0.38)	*ND(0.95)*	*ND(0.98)*	*ND(0.93)*	ND(0.39)	ND(0.39)	0.45	ND(0.39)
Dibenzofuran	100	mg/kg	ND(0.74)	ND(1.5)	ND(1.4)	ND(1.8)	ND(0.40)	ND(0.75)	ND(1.9)	ND(2.0)	ND(1.9)	ND(0.78)	ND(0.78)	1.2	ND(0.77)
Fluoranthene	1000	mg/kg	1.6	3.9	ND(0.69)	1.0	1.8	1.7	4.9	1.5	2.6	1.9	5.1	7.6	1.5
Fluorene	1000	mg/kg	ND(0.37)	ND(0.76)	ND(0.69)	ND(0.92)	ND(0.20)	ND(0.38)	ND(0.95)	ND(0.98)	ND(0.93)	ND(0.39)	0.70	0.90	ND(0.39)
Indeno(1,2,3-cd)Pyrene	7	mg/kg	0.67	1.2	ND(0.69)	ND(0.92)	0.73	0.71	1.4	ND(0.98)	1.0	0.67	1.1	1.8	0.73
Naphthalene	4	mg/kg	ND(0.37)	ND(0.76)	ND(0.69)	ND(0.92)	ND(0.20)	ND(0.38)	ND(0.95)	ND(0.98)	ND(0.93)	ND(0.39)	ND(0.39)	1.2	ND(0.39)
Phenanthrene	10	mg/kg	0.79	3.1	ND(0.69)	ND(0.92)	0.81	0.97	2.9	1.1	1.1	0.99	4.6	8.3	0.65
Pyrene	1000	mg/kg	1.7	3.8	0.82	1.0	2.2	2.2	4.3	ND(0.98)	3.0	2.4	5.5	7.1	2.2
Total SVOCs	NSE	mg/kg	8.76	18.50	0.82	2.00	30.80	30.34	53.00	3.60	13.94	11.25	25.15	40.15	9.56
Metals															
Antimony	20	mg/kg	ND(1.8)	ND(1.8)	ND(3.4)	ND(1.8)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)
Arsenic	20	mg/kg	5.3	6.0	19	4.7	11	5.0	5.7	4.7	4.1	4.9	5.2	5.1	5.5
Barium	1000	mg/kg	30	32	58	24	41	31	30	36	33	33	32	36	31
Beryllium	90	mg/kg	0.30	0.32	0.44	0.22	0.35	0.26	0.27	0.27	0.29	0.37	0.36	0.34	0.32
Cadmium	70	mg/kg	0.54	0.41	1.2	0.30	0.61	0.41	0.40	0.39	0.32	0.37	0.39	0.42	0.42
Chromium	100	mg/kg	15	15	24	12	16	14	14	14	14	16	17	14	17
Lead	200	mg/kg	53	60	87	70	120	50	30	46	26	63	62	50	37
Mercury	20	mg/kg	0.040	0.036	ND(0.049)	ND(0.026)	0.084	0.035	0.050	0.059	ND(0.027)	0.057	0.028	0.073	0.033
Nickel	600	mg/kg	12	12	19	8.9	11	11	11	11	11	12	12	12	11
Selenium	400	mg/kg	ND(3.7)	ND(3.7)	ND(6.8)	ND(3.5)	ND(4.0)	ND(3.7)	ND(3.7)	ND(3.8)	ND(3.7)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.7)
Silver	100	mg/kg	ND(0.37)	ND(0.37)	ND(0.68)	ND(0.35)	ND(0.40)	ND(0.37)	ND(0.37)	ND(0.38)	ND(0.37)	0.84	ND(0.38)	ND(0.38)	ND(0.37)
Thallium	8	mg/kg	ND(1.8)	ND(1.8)	ND(3.4)	3.4	4.2	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)
Vanadium	400	mg/kg	22	21	38	16	20	19	22	24	22	23	22	24	20
Zinc	1000	mg/kg	46	51	82	31	69	48	42	48	38	52	49	48	46

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Sample Grid	MCP RCS-1	Unit	TP-B2	TP-B3	TP-B3	TP-B4	TP-B4	TP-B5	TP-B5	TP-B6	TP-B6	TP-C1	TP-C1	TP-C2	TP-C2
Sample ID			TP-B2 (5-10)	TP-B3 (0-5)	TP-B3 (5-10)	TP-B4 (0-5)	TP-B4 (5-10)	TP-B5 (0-5)	TP-B5 (5-10)	TP-B6 (0-5)	TP-B6 (5-10)	TP-C1 (0-5)	TP-C1 (5-10)	TP-C2 (0-5)	TP-C2 (5-10)
Sample Date			3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10
Polychlorinated Biphenyls (PCBs)															
Total PCBs	1	mg/kg	ND(0.089)	ND(0.083)	ND(0.16)	ND(0.085)	ND(0.093)	ND(0.086)	ND(0.086)	ND(0.086)	ND(0.087)	ND(0.092)	ND(0.091)	ND(0.089)	ND(0.090)
General Chemistry															
Ignitability	NSE	present/absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent
pH	NSE	pH Units	7.8	7.8	7.1	8.2	7.6	7.9	8.0	8.1	7.9	7.5	8.3	7.7	7.3
Reactivity Cyanide	NSE	mg/kg	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(3.9)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)
Reactivity Sulfide	NSE	mg/kg	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)
Solids, Total	NSE	%	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)
Specific Conductance	2000	umhos/cm	16	17	17	24	7.2	7.8	13	20	5.8	12	16	8.5	9.8

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- Reportable Concentrations (RCS-1 & RCS-2) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceed applicable MCP RCS-1 Reportable Concentration
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VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-C3	TP-C3	TP-C4	TP-C4	TP-C5	TP-C5	TP-C6	TP-C6	TP-D1	TP-D1	TP-D2	TP-D2	TP-D3
Sample ID			TP-C3 (0-5)	TP-C3 (5-10)	TP-C4 (0-5)	TP-C4 (5-10)	TP-C5 (0-5)	TP-C5 (5-10)	TP-C6 (0-5)	TP-C6 (5-10)	TP-D1 (0-5)	TP-D1 (5-10)	TP-D2 (0-5)	TP-D2 (5-10)	TP-D3 (0-5)
Sample Date			3/12/2019	3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Asbestos															
CARB 435	NSE	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromati															
C09-C18 Aliphatic Hydrocarbons	1000	mg/kg	ND(53)	ND(55)	--	--	--	--	--	ND(23)	ND(59)	--	--	--	--
C11-C22 Aromatic Hydrocarbons	1000	mg/kg	250	430	--	--	--	--	--	210	250	--	--	--	--
C19-C36 Aliphatics	3000	mg/kg	210	310	--	--	--	--	--	140	190	--	--	--	--
Total Petroleum Hydrocarbons (TPH)															
TPH	1000	mg/kg	1700	1100	700	530	320	70	520	1100	1200	910	860	770	840
Volatile Organic Compounds (VOCs)															
Total VOCs	NSE	mg/kg	ND(0.22)	ND(0.082)	ND(0.16)	ND(0.24)	ND(0.092)	ND(0.19)	ND(0.094)	0.0027	ND(0.093)	ND(0.087)	ND(0.088)	ND(0.10)	0.0022
Semivolatile Organic Compounds (SVOCs)															
Benzo(a)Pyrene	2	mg/kg	2.1	2.9	0.73	0.84	ND(0.21)	ND(0.21)	2.1	12	2.7	2.2	1.6	1.4	0.88
Benzo(b)Fluoranthene	7	mg/kg	2.4	3.3	0.88	1.0	ND(0.21)	ND(0.21)	2.5	13	3.2	2.5	1.9	1.5	1.0
Benzo(g,h,i)Perylene	1000	mg/kg	ND(1.9)	1.3	0.56	0.61	ND(0.21)	ND(0.21)	1.0	5.6	1.5	1.0	1.0	1.0	0.64
Benzo(k)Fluoranthene	70	mg/kg	ND(1.9)	1.3	ND(0.38)	ND(0.41)	ND(0.21)	ND(0.21)	0.97	4.8	1.2	0.88	0.71	0.50	ND(0.41)
Chrysene	70	mg/kg	2.2	2.7	0.71	0.83	ND(0.21)	ND(0.21)	2.2	12	2.9	1.9	1.4	1.3	0.83
Dibenzo(a,h)Anthracene	0.7	mg/kg	*ND(1.9)*	ND(0.38)	ND(0.38)	ND(0.41)	ND(0.21)	ND(0.21)	*ND(0.96)*	1.5	ND(0.41)	ND(0.38)	ND(0.38)	ND(0.39)	ND(0.41)
Dibenzofuran	100	mg/kg	ND(3.7)	ND(0.75)	ND(0.76)	ND(0.81)	ND(0.42)	ND(0.43)	ND(1.9)	ND(1.9)	ND(0.82)	ND(0.76)	ND(0.76)	ND(0.78)	ND(0.82)
Fluoranthene	1000	mg/kg	4.8	6.0	1.2	1.6	0.24	ND(0.21)	3.8	23	5.7	3.7	2.6	2.3	1.7
Fluorene	1000	mg/kg	ND(1.9)	0.39	ND(0.38)	ND(0.41)	ND(0.21)	ND(0.21)	ND(0.96)	4.2	ND(0.41)	ND(0.38)	ND(0.38)	ND(0.39)	ND(0.41)
Indeno(1,2,3-cd)Pyrene	7	mg/kg	ND(1.9)	1.5	0.53	0.60	ND(0.21)	ND(0.21)	1.1	6.4	1.7	1.1	1.0	1.1	0.61
Naphthalene	4	mg/kg	ND(1.9)	ND(0.38)	ND(0.38)	ND(0.41)	ND(0.21)	ND(0.21)	ND(0.96)	ND(0.97)	ND(0.41)	ND(0.38)	ND(0.38)	ND(0.39)	ND(0.41)
Phenanthrene	10	mg/kg	4.5	3.1	0.62	0.76	ND(0.21)	ND(0.21)	3.0	19	2.4	1.9	1.4	1.1	1.1
Pyrene	1000	mg/kg	5.0	6.4	1.3	1.5	0.28	ND(0.21)	4.5	19	6.0	4.0	2.9	2.4	1.7
Total SVOCs	NSE	mg/kg	21.00	28.50	6.53	7.74	0.52	ND	21.17	120.50	27.30	19.18	14.51	12.60	8.46
Metals															
Antimony	20	mg/kg	ND(1.8)	ND(1.9)	ND(1.8)	ND(2.0)	ND(2.1)	ND(2.1)	ND(1.9)	ND(1.9)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.9)	ND(2.0)
Arsenic	20	mg/kg	4.5	3.5	7.7	4.0	6.5	6.6	5.9	5.3	3.4	4.6	4.7	4.6	6.2
Barium	1000	mg/kg	30	35	32	31	35	38	46	33	32	31	30	34	38
Beryllium	90	mg/kg	0.28	0.34	0.25	0.24	0.44	0.50	0.32	0.27	0.40	0.33	0.34	0.35	0.40
Cadmium	70	mg/kg	0.29	0.30	0.50	0.34	0.33	0.32	0.40	0.36	0.29	0.31	0.33	0.35	0.42
Chromium	100	mg/kg	13	16	12	14	15	18	23	15	17	15	15	17	18
Lead	200	mg/kg	27	43	79	65	16	11	79	30	40	47	53	51	45
Mercury	20	mg/kg	0.048	0.053	0.049	0.095	0.037	ND(0.030)	0.064	ND(0.029)	0.055	0.059	0.061	0.045	0.086
Nickel	600	mg/kg	12	13	9.2	8.9	10	12	10	12	15	12	12	13	13
Selenium	400	mg/kg	ND(3.6)	ND(3.7)	ND(3.7)	ND(3.9)	ND(4.1)	ND(4.3)	ND(3.8)	ND(3.8)	ND(4.1)	ND(3.7)	ND(3.7)	ND(3.8)	ND(3.9)
Silver	100	mg/kg	ND(0.36)	ND(0.37)	ND(0.37)	ND(0.39)	ND(0.41)	ND(0.43)	ND(0.38)	ND(0.38)	ND(0.41)	ND(0.37)	ND(0.37)	ND(0.38)	ND(0.39)
Thallium	8	mg/kg	ND(1.8)	ND(1.9)	ND(1.8)	ND(2.0)	ND(2.1)	ND(2.1)	ND(1.9)	ND(1.9)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.9)	ND(2.0)
Vanadium	400	mg/kg	32	31	16	18	18	21	20	21	27	25	24	24	26
Zinc	1000	mg/kg	36	52	48	58	27	28	51	39	52	46	50	50	82

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-C3	TP-C3	TP-C4	TP-C4	TP-C5	TP-C5	TP-C6	TP-C6	TP-D1	TP-D1	TP-D2	TP-D2	TP-D3
Sample ID			TP-C3 (0-5)	TP-C3 (5-10)	TP-C4 (0-5)	TP-C4 (5-10)	TP-C5 (0-5)	TP-C5 (5-10)	TP-C6 (0-5)	TP-C6 (5-10)	TP-D1 (0-5)	TP-D1 (5-10)	TP-D2 (0-5)	TP-D2 (5-10)	TP-D3 (0-5)
Sample Date			3/12/2019	3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Polychlorinated Biphenyls (PCBs)															
Total PCBs	1	mg/kg	ND(0.088)	ND(0.089)	ND(0.091)	ND(0.096)	ND(0.096)	ND(0.10)	ND(0.089)	ND(0.088)	ND(0.098)	ND(0.090)	ND(0.090)	ND(0.092)	ND(0.097)
General Chemistry															
Ignitability	NSE	present/absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent
pH	NSE	pH Units	8.5	7.9	8.0	7.9	7.1	8.0	7.3	7.6	7.9	7.9	7.8	7.7	7.7
Reactivity Cyanide	NSE	mg/kg	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.0)	ND(3.9)	ND(4.0)	ND(4.0)	ND(3.9)	ND(4.0)	ND(4.0)	ND(3.9)	ND(3.9)
Reactivity Sulfide	NSE	mg/kg	ND(20)	ND(19)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(19)	ND(19)
Solids, Total	NSE	%	ND(20)	ND(19)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(19)	ND(19)
Specific Conductance	2000	umhos/cm	20	17	9.1	17	21	18	21	17	13	11	8.8	8.7	11

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- Reportable Concentrations (RCS-1 & RCS-2) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceed applicable MCP RCS-1 Reportable Concentration
- Full analytical results are detailed in the laboratory analytical report

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-D3	TP-D3	TP-D4	TP-D4	TP-D5	TP-D5	TP-D6	TP-D6	TP-D7	TP-D7	TP-E2	TP-E2	TP-E3
Sample ID			TP-D3 (5-10)	TP-D3 (10-15)	TP-D4 (0-5)	TP-D4 (5-10)	TP-D5 (0-5)	TP-D5 (5-10)	TP-D6 (0-5)	TP-D6 (5-10)	TP-D7 (0-5)	TP-D7 (5-10)	TP-E2 (0-5)	TP-E2 (5-10)	TP-E3 (0-5)
Sample Date			3/12/2019	3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			5-10	10-15	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Asbestos															
CARB 435	NSE	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromati															
C09-C18 Aliphatic Hydrocarbons	1000	mg/kg	ND(23)	ND(53)	ND(22)	--	ND(25)	--	--	ND(24)	--	ND(22)	ND(55)	--	--
C11-C22 Aromatic Hydrocarbons	1000	mg/kg	170	360	310	--	230	--	--	210	--	220	210	--	--
C19-C36 Aliphatics	3000	mg/kg	180	240	200	--	220	--	--	160	--	140	150	--	--
Total Petroleum Hydrocarbons (TPH)															
TPH	1000	mg/kg	1100	1200	1000	960	1100	510	590	1000	330	1000	1100	870	780
Volatile Organic Compounds (VOCs)															
Total VOCs	NSE	mg/kg	ND(0.090)	ND(0.10)	ND(0.12)	ND(0.17)	ND(0.24)	ND(0.15)	ND(0.085)	ND(0.089)	ND(0.089)	ND(0.075)	ND(0.076)	0.0023	ND(0.077)
Semivolatile Organic Compounds (SVOCs)															
Benzo(a)Pyrene	2	mg/kg	1.3	1.8	2.6	ND(0.92)	1.7	0.43	ND(0.97)	3.2	1.0	ND(1.9)	1.7	1.5	0.56
Benzo(b)Fluoranthene	7	mg/kg	1.4	2.2	3.0	ND(0.92)	2.4	0.53	ND(0.97)	3.8	1.1	ND(1.9)	1.9	1.7	0.67
Benzo(g,h,i)Perylene	1000	mg/kg	0.82	0.83	1.5	ND(0.92)	1.3	0.28	ND(0.97)	1.3	0.58	ND(1.9)	1.2	0.99	ND(0.37)
Benzo(k)Fluoranthene	70	mg/kg	0.59	0.85	1.3	ND(0.92)	0.89	0.23	ND(0.97)	1.4	0.44	ND(1.9)	ND(0.75)	ND(0.79)	ND(0.37)
Chrysene	70	mg/kg	1.2	1.8	2.6	ND(0.92)	2.0	0.41	ND(0.97)	3.2	1.1	ND(1.9)	1.8	1.3	0.48
Dibenzo(a,h)Anthracene	0.7	mg/kg	ND(0.39)	ND(0.37)	*ND(0.73)*	*ND(0.92)*	*ND(0.84)*	ND(0.19)	*ND(0.97)*	*ND(1.0)*	ND(0.38)	*ND(1.9)*	*ND(0.75)*	*ND(0.79)*	ND(0.37)
Dibenzofuran	100	mg/kg	ND(0.78)	ND(0.74)	ND(1.5)	ND(1.8)	ND(1.7)	ND(0.38)	ND(1.9)	ND(2.0)	ND(0.76)	ND(3.7)	ND(1.5)	ND(1.6)	ND(0.75)
Fluoranthene	1000	mg/kg	2.2	3.3	6.1	0.95	4.3	0.70	ND(0.97)	8.4	2.0	2.9	3.1	2.5	0.70
Fluorene	1000	mg/kg	ND(0.39)	0.38	ND(0.73)	ND(0.92)	ND(0.84)	ND(0.19)	ND(0.97)	ND(1.0)	ND(0.38)	ND(1.9)	ND(0.75)	ND(0.79)	ND(0.37)
Indeno(1,2,3-cd)Pyrene	7	mg/kg	0.80	0.93	1.6	ND(0.92)	1.2	0.29	ND(0.97)	1.6	0.67	ND(1.9)	1.1	1.0	ND(0.37)
Naphthalene	4	mg/kg	ND(0.39)	ND(0.37)	ND(0.73)	ND(0.92)	ND(0.84)	ND(0.19)	ND(0.97)	ND(1.0)	ND(0.38)	ND(1.9)	ND(0.75)	ND(0.79)	ND(0.37)
Phenanthrene	10	mg/kg	1.4	2.4	3.6	ND(0.92)	2.3	0.28	ND(0.97)	4.8	1.3	2.2	2.2	1.3	ND(0.37)
Pyrene	1000	mg/kg	2.5	3.8	5.7	1.1	3.7	0.75	ND(0.97)	7.9	2.2	3.0	3.6	2.6	0.81
Total SVOCs	NSE	mg/kg	12.21	17.91	28.00	2.05	19.79	3.90	ND	35.60	10.39	8.10	16.60	12.89	3.22
Metals															
Antimony	20	mg/kg	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.8)	ND(2.1)	ND(1.8)	ND(2.0)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.9)	ND(1.8)
Arsenic	20	mg/kg	9.1	5.7	3.4	3.7	4.2	4.6	6.8	3.9	6.1	4.8	4.8	3.9	5.2
Barium	1000	mg/kg	30	29	37	27	25	27	46	32	34	34	33	38	33
Beryllium	90	mg/kg	0.32	0.33	0.28	0.27	0.24	0.32	0.34	0.36	0.32	0.29	0.37	0.37	0.38
Cadmium	70	mg/kg	0.57	0.35	0.31	0.27	0.65	0.34	0.44	0.30	0.41	0.39	0.37	0.40	0.34
Chromium	100	mg/kg	14	15	14	15	14	15	13	19	15	17	15	16	17
Lead	200	mg/kg	110	46	56	25	25	20	110	32	71	40	41	53	25
Mercury	20	mg/kg	0.071	0.031	0.28	ND(0.027)	ND(0.032)	ND(0.028)	0.11	0.041	0.079	0.038	0.046	0.045	0.031
Nickel	600	mg/kg	10	13	12	13	10	13	9.9	15	10	13	13	13	14
Selenium	400	mg/kg	ND(3.9)	ND(3.7)	ND(3.6)	ND(3.7)	ND(4.2)	ND(3.7)	ND(3.9)	ND(4.0)	ND(3.8)	ND(3.8)	ND(3.7)	ND(3.9)	ND(3.6)
Silver	100	mg/kg	ND(0.39)	ND(0.37)	ND(0.36)	ND(0.37)	ND(0.42)	ND(0.37)	ND(0.39)	ND(0.40)	ND(0.38)	ND(0.38)	ND(0.37)	ND(0.39)	ND(0.36)
Thallium	8	mg/kg	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.8)	ND(2.1)	ND(1.8)	ND(2.0)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.9)	ND(1.8)
Vanadium	400	mg/kg	21	26	26	29	20	23	19	32	20	25	29	28	25
Zinc	1000	mg/kg	68	49	54	37	52	36	56	45	54	51	53	51	44

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Sample Grid	MCP RCS-1	Unit	TP-D3	TP-D3	TP-D4	TP-D4	TP-D5	TP-D5	TP-D6	TP-D6	TP-D7	TP-D7	TP-E2	TP-E2	TP-E3
Sample ID			TP-D3 (5-10)	TP-D3 (10-15)	TP-D4 (0-5)	TP-D4 (5-10)	TP-D5 (0-5)	TP-D5 (5-10)	TP-D6 (0-5)	TP-D6 (5-10)	TP-D7 (0-5)	TP-D7 (5-10)	TP-E2 (0-5)	TP-E2 (5-10)	TP-E3 (0-5)
Sample Date			3/12/2019	3/12/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/11/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			5-10	10-15	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Polychlorinated Biphenyls (PCBs)															
Total PCBs	1	mg/kg	ND(0.093)	ND(0.088)	ND(0.087)	ND(0.088)	ND(0.095)	ND(0.085)	ND(0.093)	ND(0.091)	ND(0.088)	ND(0.090)	ND(0.088)	ND(0.093)	ND(0.089)
General Chemistry															
Ignitability	NSE	present/absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent
pH	NSE	pH Units	7.7	8.2	8.2	7.8	8.2	8.5	7.7	7.7	7.7	8.2	7.7	8.0	8.2
Reactivity Cyanide	NSE	mg/kg	ND(4.0)	ND(3.9)	ND(4.0)	ND(3.9)	ND(4.0)	ND(4.0)	ND(3.9)	ND(4.0)	ND(4.0)	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)
Reactivity Sulfide	NSE	mg/kg	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)
Solids, Total	NSE	%	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)
Specific Conductance	2000	umhos/cm	8.0	22	24	6.2	17	11	9.0	23	11	18	18	15	13

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- Reportable Concentrations (RCS-1 & RCS-2) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceed applicable MCP RCS-1 Reportable Concentration
- Full analytical results are detailed in the laboratory analytical report

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-E3	TP-E4	TP-E4	TP-E5	TP-E5	TP-E5	TP-E6	TP-E6	TP-E7	TP-E7	TP-E8	TP-E8	TP-F3
Sample ID			TP-E3 (5-10)	TP-E4 (0-5)	TP-E4 (5-10)	TP-E5 (0-5)	TP-E5 (5-10)	TP-E5 (10-15)	TP-E6 (0-5)	TP-E6 (5-10)	TP-E7 (0-5)	TP-E7 (5-10)	TP-E8 (0-5)	TP-E8 (5-10)	TP-F3 (0-5)
Sample Date			3/12/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/12/2019
Depth Interval (ft)			5-10	0-5	5-10	0-5	5-10	10-15	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Asbestos															
CARB 435	NSE	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromati															
C09-C18 Aliphatic Hydrocarbons	1000	mg/kg	ND(24)	--	--	--	--	--	--	--	--	--	--	--	ND(55)
C11-C22 Aromatic Hydrocarbons	1000	mg/kg	170	--	--	--	--	--	--	--	--	--	--	--	280
C19-C36 Aliphatics	3000	mg/kg	130	--	--	--	--	--	--	--	--	--	--	--	220
Total Petroleum Hydrocarbons (TPH)															
TPH	1000	mg/kg	1100	430	680	590	470	110	980	54	430	160	370	300	1300
Volatile Organic Compounds (VOCs)															
Total VOCs	NSE	mg/kg	ND(0.11)	ND(0.20)	0.0052	0.0026	0.0028	ND(0.18)	ND(0.093)	ND(0.097)	ND(0.10)	ND(0.098)	0.0021	0.0036	ND(0.086)
Semivolatile Organic Compounds (SVOCs)															
Benzo(a)Pyrene	2	mg/kg	3.1	1.6	0.49	ND(0.94)	ND(0.37)	ND(0.19)	1.7	ND(0.37)	0.60	ND(0.36)	1.5	0.53	1.6
Benzo(b)Fluoranthene	7	mg/kg	3.6	1.9	0.57	0.98	ND(0.37)	ND(0.19)	2.0	ND(0.37)	0.84	ND(0.36)	1.7	0.60	1.8
Benzo(g,h,i)Perylene	1000	mg/kg	1.5	0.71	0.37	ND(0.94)	ND(0.37)	ND(0.19)	ND(0.94)	ND(0.37)	ND(0.39)	ND(0.36)	0.89	ND(0.39)	0.93
Benzo(k)Fluoranthene	70	mg/kg	1.4	0.72	0.21	ND(0.94)	ND(0.37)	ND(0.19)	ND(0.94)	ND(0.37)	ND(0.39)	ND(0.36)	0.62	ND(0.39)	ND(0.76)
Chrysene	70	mg/kg	3.3	1.5	0.46	ND(0.94)	ND(0.37)	ND(0.19)	1.9	ND(0.37)	0.64	ND(0.36)	1.5	0.48	1.5
Dibenzo(a,h)Anthracene	0.7	mg/kg	ND(0.40)	ND(0.19)	ND(0.19)	*ND(0.94)*	ND(0.37)	ND(0.19)	*ND(0.94)*	ND(0.37)	ND(0.39)	ND(0.36)	ND(0.38)	ND(0.39)	*ND(0.76)*
Dibenzofuran	100	mg/kg	ND(0.80)	ND(0.38)	ND(0.39)	ND(1.9)	ND(0.75)	ND(0.38)	ND(1.9)	ND(0.74)	ND(0.79)	ND(0.73)	ND(0.76)	ND(0.78)	ND(1.5)
Fluoranthene	1000	mg/kg	6.6	3.0	0.84	1.4	ND(0.37)	ND(0.19)	2.9	ND(0.37)	0.92	ND(0.36)	3.7	0.75	2.9
Fluorene	1000	mg/kg	ND(0.40)	0.21	ND(0.19)	ND(0.94)	ND(0.37)	ND(0.19)	ND(0.94)	ND(0.37)	ND(0.39)	ND(0.36)	0.47	ND(0.39)	ND(0.76)
Indeno(1,2,3-cd)Pyrene	7	mg/kg	1.7	0.87	0.34	ND(0.94)	ND(0.37)	ND(0.19)	0.96	ND(0.37)	0.41	ND(0.36)	1.0	ND(0.39)	0.95
Naphthalene	4	mg/kg	ND(0.40)	ND(0.19)	ND(0.19)	ND(0.94)	ND(0.37)	ND(0.19)	ND(0.94)	ND(0.37)	ND(0.39)	ND(0.36)	ND(0.38)	ND(0.39)	ND(0.76)
Phenanthrene	10	mg/kg	4.2	2.0	0.43	ND(0.94)	ND(0.37)	ND(0.19)	1.4	ND(0.37)	ND(0.39)	ND(0.36)	3.3	ND(0.39)	1.5
Pyrene	1000	mg/kg	7.5	3.4	1.0	1.4	0.40	ND(0.19)	3.4	ND(0.37)	1.2	ND(0.36)	3.6	0.95	3.0
Total SVOCs	NSE	mg/kg	32.90	15.91	4.71	3.78	0.40	ND	14.26	ND	4.61	ND	18.28	3.31	14.18
Metals															
Antimony	20	mg/kg	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.9)	ND(1.9)	9.3	ND(1.8)	ND(1.9)	ND(1.9)	ND(1.9)
Arsenic	20	mg/kg	5.3	3.7	4.9	4.4	5.9	4.3	5.1	4.4	8.7	3.7	6.4	6.6	4.0
Barium	1000	mg/kg	42	37	34	38	26	29	28	27	34	22	31	32	32
Beryllium	90	mg/kg	0.42	0.34	0.34	0.33	0.38	0.30	0.32	0.33	0.37	0.23	0.33	0.34	0.35
Cadmium	70	mg/kg	0.40	0.31	0.36	0.35	0.33	0.31	0.41	0.29	0.52	0.22	0.42	0.43	0.34
Chromium	100	mg/kg	18	14	16	15	15	14	14	15	15	8.5	15	16	17
Lead	200	mg/kg	53	74	23	26	19	37	48	8.9	780	300	59	41	39
Mercury	20	mg/kg	0.072	0.075	ND(0.028)	ND(0.026)	ND(0.026)	ND(0.028)	ND(0.029)	ND(0.026)	0.030	ND(0.026)	0.040	0.036	0.045
Nickel	600	mg/kg	14	12	13	12	13	11	11	10	11	7.2	12	12	14
Selenium	400	mg/kg	ND(4.0)	ND(3.7)	ND(3.7)	ND(3.6)	ND(3.6)	ND(3.8)	ND(3.7)	ND(3.7)	ND(3.9)	ND(3.5)	ND(3.8)	ND(3.8)	ND(3.7)
Silver	100	mg/kg	ND(0.40)	ND(0.37)	ND(0.37)	ND(0.36)	ND(0.36)	ND(0.38)	ND(0.37)	ND(0.37)	ND(0.39)	ND(0.35)	ND(0.38)	ND(0.38)	ND(0.37)
Thallium	8	mg/kg	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.9)	ND(1.9)	ND(1.9)
Vanadium	400	mg/kg	27	27	25	26	24	17	22	17	20	13	22	24	26
Zinc	1000	mg/kg	59	50	36	39	33	48	48	26	56	44	51	48	47

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-E3	TP-E4	TP-E4	TP-E5	TP-E5	TP-E5	TP-E6	TP-E6	TP-E7	TP-E7	TP-E8	TP-E8	TP-F3
Sample ID			TP-E3 (5-10)	TP-E4 (0-5)	TP-E4 (5-10)	TP-E5 (0-5)	TP-E5 (5-10)	TP-E5 (10-15)	TP-E6 (0-5)	TP-E6 (5-10)	TP-E7 (0-5)	TP-E7 (5-10)	TP-E8 (0-5)	TP-E8 (5-10)	TP-F3 (0-5)
Sample Date			3/12/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/12/2019
Depth Interval (ft)			5-10	0-5	5-10	0-5	5-10	10-15	0-5	5-10	0-5	5-10	0-5	5-10	0-5
Polychlorinated Biphenyls (PCBs)															
Total PCBs	1	mg/kg	ND(0.096)	ND(0.083)	ND(0.088)	ND(0.085)	ND(0.082)	ND(0.085)	ND(0.085)	ND(0.083)	ND(0.090)	ND(0.081)	ND(0.090)	ND(0.089)	ND(0.089)
General Chemistry															
Ignitability	NSE	present/absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent
pH	NSE	pH Units	8.1	8.5	7.9	7.9	8.6	7.7	8.1	8.3	7.2	7.6	8.2	8.3	7.7
Reactivity Cyanide	NSE	mg/kg	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.0)	ND(3.9)	ND(3.9)	ND(4.0)	ND(3.9)
Reactivity Sulfide	NSE	mg/kg	ND(20)	ND(19)	ND(19)	ND(19)	ND(20)	ND(19)	ND(19)	ND(20)	ND(20)	ND(20)	ND(19)	ND(20)	ND(20)
Solids, Total	NSE	%	ND(20)	ND(19)	ND(19)	ND(19)	ND(20)	ND(19)	ND(19)	ND(20)	ND(20)	ND(20)	ND(19)	ND(20)	ND(20)
Specific Conductance	2000	umhos/cm	19	10	10	12	11	7.0	9.3	9.3	10	18	11	9.8	17

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- Reportable Concentrations (RCS-1 & RCS-2) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceed applicable MCP RCS-1 Reportable Concentration
- Full analytical results are detailed in the laboratory analytical report

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-F3	TP-F4	TP-F4	TP-F5	TP-F5	TP-F6	TP-F6	TP-F7	TP-F7	TP-F8	TP-F8	TP-G6	TP-G6
Sample ID			TP-F3 (5-10)	TP-F4 (0-5)	TP-F4 (5-10)	TP-F5 (0-5)	TP-F5 (5-10)	TP-F6 (0-5)	TP-F6 (5-10)	TP-F7 (0-5)	TP-F7 (5-10)	TP-F8 (0-5)	TP-F8 (5-10)	TP-G6 (0-5)	TP-G6 (5-10)
Sample Date			3/12/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019
Depth Interval (ft)			5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10
Asbestos															
CARB 435	NSE	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromati															
C09-C18 Aliphatic Hydrocarbons	1000	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--
C11-C22 Aromatic Hydrocarbons	1000	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	3000	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)															
TPH	1000	mg/kg	910	390	310	640	680	420	510	580	560	250	380	400	430
Volatile Organic Compounds (VOCs)															
Total VOCs	NSE	mg/kg	ND(0.096)	ND(0.16)	0.0049	ND(0.20)	0.004	0.0026	ND(0.12)	ND(0.11)	ND(0.082)	ND(0.11)	ND(0.089)	ND(0.12)	ND(0.12)
Semivolatile Organic Compounds (SVOCs)															
Benzo(a)Pyrene	2	mg/kg	ND(0.82)	0.53	0.42	1.1	ND(0.96)	1.2	1.3	0.90	ND(0.97)	1.3	0.58	0.98	0.73
Benzo(b)Fluoranthene	7	mg/kg	ND(0.82)	0.60	0.45	1.5	1.1	1.4	1.6	1.1	ND(0.97)	1.4	0.67	1.2	0.86
Benzo(g,h,i)Perylene	1000	mg/kg	ND(0.82)	0.25	0.22	ND(0.97)	ND(0.96)	0.65	0.68	0.45	ND(0.97)	0.85	0.43	0.57	ND(0.39)
Benzo(k)Fluoranthene	70	mg/kg	ND(0.82)	0.26	ND(0.19)	ND(0.97)	ND(0.96)	0.53	0.66	0.46	ND(0.97)	0.51	ND(0.38)	0.49	ND(0.39)
Chrysene	70	mg/kg	ND(0.82)	0.56	0.44	1.1	ND(0.96)	1.2	1.4	0.92	ND(0.97)	1.4	0.57	0.95	0.72
Dibenzo(a,h)Anthracene	0.7	mg/kg	*ND(0.82)*	ND(0.20)	ND(0.19)	*ND(0.97)*	*ND(0.96)*	ND(0.37)	ND(0.40)	ND(0.37)	*ND(0.97)*	ND(0.38)	ND(0.38)	ND(0.38)	ND(0.39)
Dibenzofuran	100	mg/kg	ND(1.6)	ND(0.39)	ND(0.38)	ND(1.9)	ND(1.9)	ND(0.75)	ND(0.79)	ND(0.75)	ND(1.9)	ND(0.76)	ND(0.76)	ND(0.75)	ND(0.79)
Fluoranthene	1000	mg/kg	0.83	0.80	0.54	1.8	1.2	2.2	2.7	1.5	ND(0.97)	2.7	0.89	1.6	1.1
Fluorene	1000	mg/kg	ND(0.82)	ND(0.20)	ND(0.19)	ND(0.97)	ND(0.96)	ND(0.37)	ND(0.40)	ND(0.37)	ND(0.97)	ND(0.38)	ND(0.38)	ND(0.38)	ND(0.39)
Indeno(1,2,3-cd)Pyrene	7	mg/kg	ND(0.82)	0.25	0.23	ND(0.97)	ND(0.96)	0.69	0.75	0.54	ND(0.97)	0.96	0.44	0.65	0.47
Naphthalene	4	mg/kg	ND(0.82)	ND(0.20)	ND(0.19)	ND(0.97)	ND(0.96)	ND(0.37)	ND(0.40)	ND(0.37)	ND(0.97)	ND(0.38)	ND(0.38)	ND(0.38)	ND(0.39)
Phenanthrene	10	mg/kg	ND(0.82)	0.62	0.31	ND(0.97)	ND(0.96)	1.1	1.6	0.97	ND(0.97)	2.2	0.40	0.93	0.62
Pyrene	1000	mg/kg	0.90	1.1	0.82	2.2	1.5	2.3	2.8	1.7	ND(0.97)	3.1	1.1	1.9	1.3
Total SVOCs	NSE	mg/kg	1.73	4.97	3.43	7.70	3.80	11.27	13.49	8.54	ND	14.42	5.08	9.27	5.80
Metals															
Antimony	20	mg/kg	ND(2.0)	ND(2.0)	ND(1.8)	ND(2.0)	ND(1.9)	ND(1.8)	ND(1.9)	ND(1.8)	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.9)
Arsenic	20	mg/kg	4.7	7.0	5.8	4.8	4.4	4.1	4.5	6.7	5.9	6.4	6.9	5.3	5.3
Barium	1000	mg/kg	34	31	28	29	28	46	37	30	30	38	34	31	28
Beryllium	90	mg/kg	0.34	0.37	0.37	0.28	0.31	0.31	0.32	0.35	0.35	0.35	0.35	0.35	0.30
Cadmium	70	mg/kg	0.40	0.44	0.39	0.56	0.49	0.37	0.55	0.51	0.41	0.43	0.45	0.42	0.50
Chromium	100	mg/kg	13	16	16	21	15	18	16	15	15	14	15	16	15
Lead	200	mg/kg	26	34	32	25	26	63	51	57	34	74	69	56	49
Mercury	20	mg/kg	0.030	ND(0.029)	0.028	ND(0.028)	ND(0.027)	0.039	0.048	0.038	0.032	0.050	0.041	0.040	0.35
Nickel	600	mg/kg	12	12	11	12	11	13	14	12	12	11	12	11	10
Selenium	400	mg/kg	ND(4.1)	ND(3.9)	ND(3.7)	ND(3.9)	ND(3.7)	ND(3.7)	ND(3.8)	ND(3.6)	ND(3.7)	ND(3.6)	ND(3.7)	ND(3.7)	ND(3.8)
Silver	100	mg/kg	ND(0.41)	ND(0.39)	ND(0.37)	ND(0.39)	ND(0.37)	ND(0.37)	ND(0.38)	ND(0.36)	ND(0.37)	ND(0.36)	ND(0.37)	ND(0.37)	ND(0.38)
Thallium	8	mg/kg	ND(2.0)	ND(2.0)	ND(1.8)	ND(2.0)	ND(1.9)	ND(1.8)	ND(1.9)	ND(1.8)	ND(1.9)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.9)
Vanadium	400	mg/kg	21	21	19	20	21	26	25	21	23	20	21	21	18
Zinc	1000	mg/kg	67	38	38	67	49	60	66	46	41	52	55	50	57

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-F3	TP-F4	TP-F4	TP-F5	TP-F5	TP-F6	TP-F6	TP-F7	TP-F7	TP-F8	TP-F8	TP-G6	TP-G6
Sample ID			TP-F3 (5-10)	TP-F4 (0-5)	TP-F4 (5-10)	TP-F5 (0-5)	TP-F5 (5-10)	TP-F6 (0-5)	TP-F6 (5-10)	TP-F7 (0-5)	TP-F7 (5-10)	TP-F8 (0-5)	TP-F8 (5-10)	TP-G6 (0-5)	TP-G6 (5-10)
Sample Date			3/12/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019
Depth Interval (ft)			5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10	0-5	5-10
Polychlorinated Biphenyls (PCBs)															
Total PCBs	1	mg/kg	0.21	ND(0.088)	ND(0.086)	ND(0.092)	ND(0.087)	ND(0.087)	ND(0.090)	ND(0.084)	ND(0.089)	ND(0.086)	ND(0.084)	ND(0.088)	ND(0.094)
General Chemistry															
Ignitability	NSE	present/absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent
pH	NSE	pH Units	7.9	7.7	7.6	7.9	8.0	8.4	8.6	7.7	7.9	7.9	8.0	8.0	7.8
Reactivity Cyanide	NSE	mg/kg	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.0)	ND(4.0)	ND(3.9)	ND(3.9)	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.0)
Reactivity Sulfide	NSE	mg/kg	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(19)	ND(19)	ND(20)
Solids, Total	NSE	%	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(19)	ND(19)	ND(20)
Specific Conductance	2000	umhos/cm	31	11	16	9.0	6.7	19	21	15	11	8.1	16	7.5	15

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- Reportable Concentrations (RCS-1 & RCS-2) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceed applicable MCP RCS-1 Reportable Concentration
- Full analytical results are detailed in the laboratory analytical report

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-G7	TP-G7	TP-V-101	TP-V-102	TP-V-103	TP-V-104	TP-V-105
Sample ID			TP-G7 (0-5)	TP-G7 (5-10)	TP-V-101	TP-V-102	TP-V-103	TP-V-104	TP-V-105
Sample Date			3/1/2019	3/1/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			0-5	5-10	-	-	-	-	-
Asbestos									
CARB 435	NSE	%	0.00	0.00	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromati									
C09-C18 Aliphatic Hydrocarbons	1000	mg/kg	--	--	--	ND(22)	--	--	--
C11-C22 Aromatic Hydrocarbons	1000	mg/kg	--	--	--	110	--	--	--
C19-C36 Aliphatics	3000	mg/kg	--	--	--	81	--	--	--
Total Petroleum Hydrocarbons (TPH)									
TPH	1000	mg/kg	360	430	500	3100	530	960	180
Volatile Organic Compounds (VOCs)									
Total VOCs	NSE	mg/kg	ND(0.11)	0.0026	ND(0.16)	ND(0.17)	ND(0.28)	ND(0.18)	ND(0.23)
Semivolatile Organic Compounds (SVOCs)									
Benzo(a)Pyrene	2	mg/kg	0.58	0.58	1.3	1.2	0.24	ND(0.38)	0.32
Benzo(b)Fluoranthene	7	mg/kg	0.71	0.68	1.4	1.4	0.26	0.42	0.36
Benzo(g,h,i)Perylene	1000	mg/kg	ND(0.39)	ND(0.38)	ND(0.75)	ND(0.93)	ND(0.20)	ND(0.38)	ND(0.20)
Benzo(k)Fluoranthene	70	mg/kg	ND(0.39)	ND(0.38)	ND(0.75)	ND(0.93)	ND(0.20)	ND(0.38)	ND(0.20)
Chrysene	70	mg/kg	0.60	0.58	1.1	1.2	ND(0.20)	ND(0.38)	0.33
Dibenzo(a,h)Anthracene	0.7	mg/kg	ND(0.39)	ND(0.38)	*ND(0.75)*	*ND(0.93)*	ND(0.20)	ND(0.38)	ND(0.20)
Dibenzofuran	100	mg/kg	ND(0.77)	ND(0.77)	ND(1.5)	ND(1.9)	ND(0.41)	ND(0.77)	ND(0.41)
Fluoranthene	1000	mg/kg	0.96	1.1	2.0	2.2	0.41	ND(0.38)	0.77
Fluorene	1000	mg/kg	ND(0.39)	ND(0.38)	ND(0.75)	ND(0.93)	ND(0.20)	ND(0.38)	ND(0.20)
Indeno(1,2,3-cd)Pyrene	7	mg/kg	ND(0.39)	ND(0.38)	0.86	ND(0.93)	ND(0.20)	ND(0.38)	0.21
Naphthalene	4	mg/kg	ND(0.39)	ND(0.38)	ND(0.75)	ND(0.93)	ND(0.20)	ND(0.38)	ND(0.20)
Phenanthrene	10	mg/kg	0.58	0.82	1.1	ND(0.93)	0.21	ND(0.38)	0.76
Pyrene	1000	mg/kg	1.2	1.2	2.2	2.5	0.42	0.53	0.87
Total SVOCs	NSE	mg/kg	4.63	4.96	9.96	8.50	1.54	0.95	3.62
Metals									
Antimony	20	mg/kg	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.0)
Arsenic	20	mg/kg	5.0	11	4.3	5.3	6.9	4.7	4.3
Barium	1000	mg/kg	37	38	25	42	56	37	39
Beryllium	90	mg/kg	0.39	0.40	0.31	0.33	0.54	0.28	0.35
Cadmium	70	mg/kg	0.36	0.56	0.26	0.38	0.39	0.30	0.26
Chromium	100	mg/kg	16	15	13	17	25	16	18
Lead	200	mg/kg	53	50	18	31	20	24	15
Mercury	20	mg/kg	0.043	0.031	ND(0.027)	0.034	0.040	0.073	ND(0.031)
Nickel	600	mg/kg	13	12	11	14	18	11	13
Selenium	400	mg/kg	ND(3.8)	ND(3.8)	ND(3.6)	ND(3.7)	ND(4.0)	ND(3.8)	ND(3.9)
Silver	100	mg/kg	ND(0.38)	ND(0.38)	ND(0.36)	ND(0.37)	ND(0.40)	ND(0.38)	ND(0.39)
Thallium	8	mg/kg	ND(1.9)	ND(1.9)	ND(1.8)	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.0)
Vanadium	400	mg/kg	25	24	22	26	32	19	23
Zinc	1000	mg/kg	51	46	32	42	48	48	37

Table 1
Summary of Stockpile Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample Grid	MCP RCS-1	Unit	TP-G7	TP-G7	TP-V-101	TP-V-102	TP-V-103	TP-V-104	TP-V-105
Sample ID			TP-G7 (0-5)	TP-G7 (5-10)	TP-V-101	TP-V-102	TP-V-103	TP-V-104	TP-V-105
Sample Date			3/1/2019	3/1/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019	3/12/2019
Depth Interval (ft)			0-5	5-10	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)									
Total PCBs	1	mg/kg	ND(0.087)	ND(0.089)	ND(0.083)	ND(0.088)	ND(0.094)	ND(0.085)	ND(0.094)
General Chemistry									
Ignitability	NSE	present/absent	absent	absent	absent	absent	absent	absent	absent
pH	NSE	pH Units	8.0	7.7	7.7	8.1	7.8	7.3	7.7
Reactivity Cyanide	NSE	mg/kg	ND(3.9)	ND(3.9)	ND(4.0)	ND(3.9)	ND(4.0)	ND(4.0)	ND(4.0)
Reactivity Sulfide	NSE	mg/kg	ND(20)	ND(19)	ND(20)	ND(19)	ND(20)	ND(20)	ND(20)
Solids, Total	NSE	%	ND(20)	ND(19)	ND(20)	ND(19)	82.4	88.1	82.2
Specific Conductance	2000	umhos/cm	13	11	14	23	16	9.3	17

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- Reportable Concentrations (RCS-1 & RCS-2) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceed applicable MCP RCS-1 Reportable Concentration
- Full analytical results are detailed in the laboratory analytical report

Table 2
Summary of Firing Range Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample ID	RCS-1	Units	V-201	V-202	V-203	V-204	V-205	V-206	FIRING RANGE
Sample Date			4/11/2019	4/11/2019	4/11/2019	4/11/2019	4/11/2019	4/11/2019	4/11/2019
Metals									
Antimony	20	mg/kg	41	140	ND(1.7)	3.3	5.1	140	290
Arsenic	20	mg/kg	--	--	--	--	--	--	9.2
Barium	1000	mg/kg	--	--	--	--	--	--	13
Beryllium	90	mg/kg	--	--	--	--	--	--	ND(0.17)
Cadmium	70	mg/kg	--	--	--	--	--	--	0.40
Chromium	100	mg/kg	--	--	--	--	--	--	4.3
Copper	1000	mg/kg	4200	4200	120	74	1000	7100	--
Lead	200	mg/kg	4000	13000	46	290	630	24000	24000
Mercury	20	mg/kg	--	--	--	--	--	--	ND(0.025)
Nickel	600	mg/kg	--	--	--	--	--	--	3.6
Selenium	400	mg/kg	--	--	--	--	--	--	ND(3.3)
Silver	100	mg/kg	--	--	--	--	--	--	1.2
Thallium	8	mg/kg	--	--	--	--	--	--	ND(1.7)
Tungsten	NSE	mg/kg	ND(0.4)	14	5	ND(0.4)	ND(0.4)	ND(0.3)	--
Vanadium	400	mg/kg	--	--	--	--	--	--	7.7
Zinc	1000	mg/kg	18	29	27	37	23	69	46
Metals, TCLP									
Lead	5*	mg/l	180	360	7.5	8.3	48	830	--
Total Petroleum Hydrocarbons (TPH)									
TPH	1000	mg/kg	--	--	--	--	--	--	27
Volatile Organic Compounds (VOCs)									
Total VOCs	NSE	mg/kg	--	--	--	--	--	--	ND
Semivolatile Organic Compounds (SVOCs)									
Total SVOCs	NSE	mg/kg	--	--	--	--	--	--	ND
Polychlorinated Biphenyls (PCBs)									
Total PCBs	1	mg/kg	--	--	--	--	--	--	ND(0.081)
General Chemistry									
Ignitability	NSE	present/absent	--	--	--	--	--	--	absent
pH	5-9	pH Units	--	--	--	--	--	--	6.6
Reactivity Cyanide	NSE	mg/kg	--	--	--	--	--	--	ND(3.9)
Reactivity Sulfide	NSE	mg/kg	--	--	--	--	--	--	20
Solids, Total	NSE	%	93.3	95.4	95.3	92.1	92.3	92.9	96.4
Specific Conductance	2000	umhos/cm	--	--	--	--	--	--	2.0

Notes:
- mg/kg=milligram per kilogram; mg/l=milligram per liter; uhoms/cm= microohms per centimeter
- Reportable Concentrations (RCS-1) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- * = MCP RCS-1 does not apply. Regulatory concentration taken from the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations 40 CFR Part 261 Subpart C.
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceeds the applicable Reportable Concentration (*regulatory concentration)
- Full analytical results, including QA/QC information and data flags, are detailed in the laboratory analytical report

Table 2
Summary of Firing Range Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Sample ID	RCS-1	Units	V-301 (2-4)	V-302 (2-4)	V-303 (2-4)	V-304 (2-4)	V-305 (2-4)	V-306 (2-4)	V-307 (2-4)	V-308 (2-4)	V-309 (0-2)	V-310 (0-2)	V-311 (0-2)	V-312 (2-4)	V-313 (2-4)	V-314 (2-4)
Sample Date			5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019	5/8/2019
Metals																
Antimony	20	mg/kg	ND(1.7)	ND(1.8)	ND(1.8)	ND(1.7)	ND(1.7)	ND(1.8)	ND(1.8)	ND(1.7)	ND(1.7)	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.8)	ND(1.8)
Arsenic	20	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	1000	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	90	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	70	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	100	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	1000	mg/kg	13	22	45	13	37	31	28	43	4.2	400	5.9	20	24	32
Lead	200	mg/kg	5.0	31	28	12	22	25	57	22	5.9	140	8.8	150	86	55
Mercury	20	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	600	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	400	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	100	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	8	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tungsten	NSE	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	400	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	1000	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals, TCLP																
Lead	5*	mg/l	--	--	--	--	--	--	--	--	--	20	--	0.099	--	--
Total Petroleum Hydrocarbons (TPH)																
TPH	1000	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)																
Total VOCs	NSE	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organic Compounds (SVOCs)																
Total SVOCs	NSE	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs)																
Total PCBs	1	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
General Chemistry																
Ignitability	NSE	present/absent	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	5-9	pH Units	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Reactivity Cyanide	NSE	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Reactivity Sulfide	NSE	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Solids, Total	NSE	%	93.9	91.5	93.3	94.1	93.5	92.6	93.2	93.6	96.2	96.4	96.0	89.5	89.1	91.3
Specific Conductance	2000	umhos/cm	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
- mg/kg=milligram per kilogram; mg/l=milligram per liter; uhoms/cm= microohms per centimeter
- Reportable Concentrations (RCS-1) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- * = MCP RCS-1 does not apply. Regulatory concentration taken from the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations 40 CFR Part 261 Subpart C.
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceeds the applicable Reportable Concentration (*regulatory concentration)
- Full analytical results, including QA/QC information and data flags, are detailed in the laboratory analytical report

Table 3
Summary of Soil Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Location ID	MCP RCS-1	Units	V-107	V-108	V-109	V-110	V-111	V-112	V-113	V-114	V-115	V-116
Sample ID			V-107 (5-10)	V-108 (0-5)	V-109 (5-10)	V-110 (5-10)	V-111 (0-10)	V-112 (0-5)	V-113 (0-5)	V-114 (5-10)	V-115 (5-10)	V-116 (0-5)
Sample Date			3/27/2019	3/27/2019	3/27/2019	3/27/2019	3/27/2019	3/27/2019	3/28/2019	3/28/2019	3/28/2019	3/28/2019
Total Petroleum Hydrocarbons (TPH)												
TPH	1000	mg/kg	ND(8.4)	ND(8.8)	ND(8.7)	11	13	ND(8.6)	ND(8.9)	27	--	--
Volatile Organic Compounds (VOCs)												
Toluene	30	mg/kg	ND(0.0015)	ND(0.0018)	ND(0.0030)	0.0045	0.0041	0.0030	ND(0.0018)	0.0068	--	--
Total VOCs	NSE	mg/kg	ND	ND	ND	0.0045	0.0041	0.003	ND	0.0068	--	--
Semivolatile Organic Compounds (SVOCs)												
Total SVOCs	NSE	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	--	--
Metals												
Antimony	20	mg/kg	ND(1.7)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(1.8)	ND(1.8)	ND(1.7)	--	--
Arsenic	20	mg/kg	11	5.6	6.5	6.4	11	5.0	2.8	4.5	--	--
Barium	1000	mg/kg	27	30	33	26	32	21	15	31	--	--
Beryllium	90	mg/kg	0.27	0.28	0.28	0.26	0.31	0.25	ND(0.18)	0.26	--	--
Cadmium	70	mg/kg	0.34	0.19	0.21	0.23	0.37	ND(0.18)	ND(0.18)	ND(0.17)	--	--
Chromium	100	mg/kg	12	12	12	33	11	9.1	11	15	--	--
Lead	200	mg/kg	6.1	5.2	5.0	3.9	5.6	3.9	2.3	5.8	--	--
Mercury	20	mg/kg	ND(0.025)	ND(0.026)	ND(0.026)	ND(0.028)	ND(0.026)	ND(0.027)	ND(0.026)	ND(0.026)	--	--
Nickel	600	mg/kg	9.3	9.4	9.6	11	11	7.1	4.8	12	--	--
Selenium	400	mg/kg	ND(3.4)	ND(3.5)	ND(3.5)	ND(3.5)	ND(3.4)	ND(3.5)	ND(3.6)	ND(3.4)	--	--
Silver	100	mg/kg	0.42	0.41	0.37	ND(0.35)	0.44	ND(0.35)	ND(0.36)	0.57	--	--
Thallium	8	mg/kg	ND(1.7)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(1.8)	ND(1.8)	ND(1.7)	--	--
Vanadium	400	mg/kg	17	17	17	17	17	12	9.6	23	--	--
Zinc	1000	mg/kg	26	25	23	24	25	17	11	30	--	--
Polychlorinated Biphenyls (PCBs)												
Total PCBs	1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Chemistry												
Ignitability	NSE	present/ absent	absent	absent	absent	absent	absent	absent	absent	absent	--	--
pH	5-9	pH Units	8.1	8.2	8.1	8.5	8.2	6.3	6.5	6.4	--	--
Reactivity Cyanide	NSE	mg/kg	ND(3.9)	ND(3.9)	ND(4.0)	ND(4.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.0)	--	--
Reactivity Sulfide	NSE	mg/kg	ND(19)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	--	--
Solids, Total	NSE	%	97.0	93.8	94.2	94.8	95.2	94.5	93.3	95.4	94.6	94.6
Specific Conductance	2000	umhos/cm	4.9	5.7	5.8	5.3	6.5	4.7	ND(2.0)	2.1	--	--

Notes:
- mg/kg=milligram per kilogram; uhoms/cm=microohms per centimeter
- MCP RCS-1 Reportable Concentrations taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceeds the applicable Reportable Concentration
- Full analytical results, including QA/QC information and data flags, are detailed in the laboratory analytical report

Table 4
Summary of Groundwater Analytical Data
Rivers Edge
484 - 490 Boston Post Road, Wayland, MA
VERTEX PROJECT NO. 67404

Location ID	RCGW-1	Units	MW-3	V-101 (MW)	V-102 (MW)	V-103 (MW)	V-104 (MW)	V-105 (MW)	V-106 (MW)
Sample Date			4/2/2019	4/1/2019	4/1/2019	4/2/2019	4/2/2019	4/1/2019	4/2/2019
Volatile Organic Compounds (VOCs)									
Methyl Tert-Butyl Ether	70	ug/l	ND(1.0)	8.2	1.1	ND(1.0)	ND(1.0)	1.6	14
Tertiary-Amyl Methyl Ether (TAME)	NSE	ug/l	ND(2.0)	4.5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	6.4
Total VOCs	NSE	ug/l	ND	12.7	1.1	ND	ND(2.0)	1.6	20.4
Semivolatile Organic Compounds (SVOCs)									
Total SVOCs	NSE	ug/l	ND	ND	ND	ND	ND	ND	ND
Metals, Total									
Antimony	NSE	ug/l	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Arsenic	NSE	ug/l	ND(0.40)	ND(0.40)	22	ND(0.40)	0.50	ND(0.40)	1.6
Barium	NSE	ug/l	13	93	210	14	14	150	190
Beryllium	NSE	ug/l	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Cadmium	NSE	ug/l	ND(0.50)	0.52	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	3.0
Chromium	NSE	ug/l	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	2.8
Copper	NSE	ug/l	ND(5.0)	5.1	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	6.9
Lead	NSE	ug/l	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	1.6
Manganese	NSE	ug/l	73	4400	7000	91	95	870	5400
Mercury	NSE	ug/l	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
Nickel	NSE	ug/l	ND(5.0)	17	9.0	ND(5.0)	ND(5.0)	44	110
Selenium	NSE	ug/l	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
Silver	NSE	ug/l	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Thallium	NSE	ug/l	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)
Vanadium	NSE	ug/l	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
Zinc	NSE	ug/l	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	33
Metals, Dissolved									
Arsenic	10	ug/l	0.74	0.98	26	0.74	0.79	1.1	1.0
Nickel	100	ug/l	-	-	-	-	-	-	110
Polychlorinated Biphenyls (PCBs)									
Total PCBs	0.5	ug/l	ND	ND	ND	ND	ND	ND	ND
General Chemistry									
Ammonia	1000	ug/l	ND(300)	1500	1500	ND(300)	ND(300)	1100	2000
Chloride	NSE	ug/l	120000	260000	95000	230000	26000	140000	210000
Nitrogen	NSE	ug/l	3500	5100	7000	1700	4100	11000	39000
Nitrogen, Nitrate	NSE	ug/l	1500	2700	4700	1700	2100	7800	35000
Nitrogen, Nitrate/Nitrite	NSE	ug/l	ND(100)	400	254	ND(100)	ND(100)	810	302
Nitrogen, Total Kjeldahl	NSE	ug/l	2000	2000	2000	ND(1000)	2000	2000	4000
Ortho-phosphate	NSE	ug/l	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
Phosphorus	NSE	ug/l	ND(62)	ND(62)	ND(62)	140	ND(62)	ND(62)	93

Notes:
- ug/l=micrograms per liter
- Reportable Concentrations (RCGW-1) taken from the Massachusetts Contingency Plan (MCP) 310 CMR 40.0974(2) dated April 2014
- ND = Not Detected above laboratory reporting limits shown in parenthesis
- -- = Not Analyzed
- NSE = No Standard Exists
- Highlighted values exceeds the applicable Reportable Concentration
- Italicized values represent laboratory detection limit equal to or above applicable RCGW-1 standard
- Full analytical results, including QA/QC information and data flags, are detailed in the laboratory analytical report

Table 5
Summary of Soil Vapor Analytical Data
Rivers Edge
484 - 490 Boston Post Road
Wayland, MA
VERTEX PROJECT NO. 67404

Location ID	V-SG-101	V-SG-102	V-SG-103	V-SG-104	V-SG-105	V-SG-106
Sample Date	4/9/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019
CHEMICAL NAME						
Methane	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)

Notes:
- Results reported in parts per million/volume (ppmv)
- Full analytical results, including QA/QC information and data flags, are detailed in the laboratory analytical report

APPENDIX A:

SUMMARY OF PUBLIC COMMENTS

APPENDIX A
Summary of Public Comments
Initial Interview Period

SUMMARY OF VERTEX INTERVIEWS

Below is a summary of the concerns that were identified during VERTEX's communications with the PIP Group. The comments summarized below are specific to concerns regarding the Massachusetts Contingency Plan (MCP) process for Release Tracking Numbers (RTNs) 3-34474 and 3-36013.

Public Process

The public have concerns regarding the transparency of cleanup operations at the Site. The PIP petition is a request to engage the public in the cleanup process, keep the public informed on completed/proposed/completed response actions, and allow for comments and questions regarding the Massachusetts Contingency Plan (MCP) process.

Availability and Legibility of Documents

Currently, documents pertaining to the Site are difficult to locate and are scattered about. The public is requesting a central location to access all publicly available documents pertaining to environmental response actions at the Site. Additionally, concerns have arisen that the documents are written using technical terms that are not easily understood to those outside of the environmental response field. The public requests short summaries describing the contents of technical documents to assist with comprehension.

RTN 3-34474

The public were not made aware of the environmental response actions and subsequent closure of RTN 3-34474 associated with asbestos materials that were identified at the Site. Requests have been made to receive publicly available information pertaining to the response actions and closure of RTN 3-34474.

Groundwater Impacts

As outlined in the PIP Petition, the public are concerned about groundwater impacts that have been detected at the Site migrating to the abutting wetlands and subsequently the Sudbury River. Additionally, there are concerns regarding how the groundwater impacts are going to be affected by the proposed infiltration pond scheduled for construction at the Site. The abutting wetlands and Sudbury River is home to a large amount of native wildlife and fauna and there are concerns that both are going to be harmed by groundwater impacts.

PETITION FOR PUBLIC INVOLVEMENT PLAN DESIGNATION
RTN 3-0036013 and RTN 3-0034474

Pursuant to 310 CMR 40.1404 (5), 40.1403 (9), and 40.1405, we, the undersigned residents of Wayland, Massachusetts, respectfully request involvement in response actions to be conducted by the Town of Wayland at 484-490 Boston Post Road, Wayland, MA 01778, RTN 3-0036013 and RTN 3-0034474, and that it be designated a Public Involvement Plan Site under the MA Contingency Plan. As stated in a legal notice published in the December 10, 2020 *Wayland Town Crier* newspaper, an Initial Site Investigation was performed, the property has Tier I Classification, and the opportunity for the public to participate under the DEP's Public Involvement Program is announced. The site location name is River's Edge Planned Development where a large apartment complex is proposed.

The Town first reported releases of hazardous materials at this location to the DEP in 2017, but the Board of Selectmen and senior staff never publicly discuss the cleanup. Public documents and correspondence about this matter, including from the Town's Licensed Site Professional, are not disclosed nor made readily available to other boards or to the community. Our concerns include the impact of site cleanup on wetlands, the Sudbury River, and the impact of groundwater contamination on plans for a future on-site leach field to accommodate about 38,000 gallons/day of wastewater. We would appreciate the opportunity to become better informed and participate under the Public Involvement Program.

NAME (print please)	ADDRESS	PHONE	SIGNATURE
Carole Plumb	19 Baldrock Rd	508-655-1585	Carole Plumb
Sierre Greenbaum	161 Plain Rd.	508-358-3409	Sierre Greenbaum
Stephen Greenbaum	161 Plain Rd.	508-358-3409	Stephen Greenbaum
DONNA BOUCHARD	72 CONCORD RD.	508.358.4780	
DAVID MCHARG	72 CONCORD RD	5083584780	
SARA HARRIS	8 HOLIDAY RD.,	508 358-2379	Sara Harris
GEORGE HARRIS	8 Holiday Rd.,	508-358-2379	
CYNTHIA	54 ORCHARD LA	508.414-5541	
DAVID MCHARG	54 ORCHARD LANE	508-769-3074	
Anette Lewis	33 Claypit Hill Rd.	508/358-4973	Anette Lewis
Susan Reed	58 Glezen Ln	508.358.5495	Susan Reed
STUART EDELMAN	58 GLEZEN LN	508-358-5495	

Submitted on 12/28/2020

TOWN OF WAYLAND

41 COCHITUATE ROAD
WAYLAND, MASSACHUSETTS 01778

LOUISE L.E. MILLER
TOWN ADMINISTRATOR
TEL. (508) 358-3620
www.wayland.ma.us

BOARD OF SELECTMEN
LEA T. ANDERSON
MARY M. ANTES
THOMAS J. FAY
CHERRY C. KARLSON
DAVID V. WATKINS

January 14, 2020

Stuart Edelman
58 Glezen Lane
Wayland, MA 01778

Re: Public Involvement Plan Petition Request Planned River's Edge Development
484-490 Boston Post Road Wayland, MA 01778
Release Tracking Number (RTN) 3-34474
Release Tracking Number (RTN) 3-36013

Dear Mr. Edelman:

The Town of Wayland ("the Town") has received a petition dated December 28, 2020 to make the planned River's Edge Development a Public Involvement Plan (PIP) site ("the Site"). The purpose of this letter is to inform you that the Site, pursuant to the Massachusetts Contingency Plan (MCP) – 310 CMR 40.1404(7), has been designated as a PIP Site.

The Town will present a Draft PIP site-specific plan at a public meeting no later than March 18, 2021. The exact date and time will published in a local newspaper at least two weeks prior to its occurrence. The Massachusetts Department of Environmental Protection (MassDEP) has issued the two above referenced Response Tracking Numbers (RTNs) for the Site. The meeting will include a presentation on the status of those RTNs and will be the beginning of a 20-day public comment period.

The Town has hired Benson Gould of CMG Environmental to serve as the Licensed Site Professional (LSP) to manage MCP response actions for these RTNs. As Mr. Gould noted in an email sent to Carole Plumb on December 29, 2020, remediation work for RTN 3-34474 is almost complete, and is expected to reach a Permanent Solution by the date of the initial public meeting. The Town plans to update the public at this meeting about RTN 3-34474 and its Permanent Solution.

Sincerely,

Louise L. E. Miller
Town Administrator

APPENDIX B:

PUBLIC INVOLVEMENT PLAN MAILING LIST

APPENDIX B

PUBLIC INVOLVEMENT PLAN MAILING LIST

Name	#	Street	Town	State	Zip	PIP Petioner
Carole Plumb	17	Bald Rock Road	Wayland	MA	01778	X
Sherre Greenbaum	161	Plain Road	Wayland	MA	01778	X
Stephen Greenbaum	161	Plain Road	Wayland	MA	01778	X
Donna Bouchard	72	Concord Road	Wayland	MA	01778	X
David M^{c}Harg	72	Concord Road	Wayland	MA	01778	X
Barbara Harris	8	Holiday Road	Wayland	MA	01778	X
George Harris	8	Holiday Road	Wayland	MA	01778	X
Cynthia Hill	54	Orchard Lane	Wayland	MA	01778	X
David M. Hill	54	Orchard Lane	Wayland	MA	01778	X
Anette Lewis	33	Claypit Hill Road	Wayland	MA	01778	X
Susan Reed	58	Glezen Lane	Wayland	MA	01778	X
Stuart Edelman	58	Glezen Lane	Wayland	MA	01778	X
Molly Upton			Wayland	MA	01778	
Carole Plumb			Wayland	MA	01778	
Sean Faur		Conservation Commission	Wayland	MA	01778	
Robert DeFrancesco		Board of Health	Wayland	MA	01778	
Louise Miller		Town Administrator	Wayland	MA	01778	
Michael Wegerbauer		Department of Public Works	Wayland	MA	01778	
Albert I. Montague Jr.		Planning Board	Wayland	MA	01778	
Michael Gitten		Wastewater Management District	Wayland	MA	01778	
Elizabeth Newton		Surface Water Quality Commission	Wayland	MA	01778	
Louise Miller		River's Edge Advisory Committee	Wayland	MA	01778	
Cherry C. Karlson		Board of Selectmen	Wayland	MA	01778	
Daniel Nason		Department of Public Works	Sudbury	MA	01776	
Lori Capone		Conservation Commission	Sudbury	MA	01776	
Henry Hayes		Town Manager	Sudbury	MA	01776	

APPENDIX C:

SCHEDULE OF PUBLIC INVOLVEMENT ACTIVITIES

PIP Schedule

APPENDIX C
SCHEDULE OF PUBLIC INVOLVEMENT ACTIVITIES

ID	Task Name	Duration	Start	Finish
1	**PUBLIC INVOLVEMENT ACTIVITIES**	**342.75 days**	**Thu 3/18/21**	**Fri 2/11/22**
2	Draft PIP Meeting	0 days	Thu 3/18/21	Thu 3/18/21
3	Public Comment Period	40 days	Fri 3/19/21	Mon 4/26/21
4	End of Public Comment Period	0 days	Tue 4/27/21	Tue 4/27/21
5	Response to PIP Comments	0 days	Wed 6/23/21	Wed 6/23/21
6	Final PIP Issued	0 days	Tue 5/25/21	Tue 5/25/21
7	Downgradient Property Status Public Meeting (approx)	0 days	Wed 6/30/21	Wed 6/30/21
8	Public Comment Period	20 days	Wed 6/30/21	Mon 7/19/21
9	Response to DPS Comments	0 days	Wed 9/15/21	Wed 9/15/21
10	Final DPS Filed	0 days	Tue 8/17/21	Tue 8/17/21
11	RAM Completion Report and Permanent Solution Public Meeting (approx)	0 days	Fri 11/26/21	Fri 11/26/21
12	Public Comment Period	20 days	Fri 11/26/21	Wed 12/15/21
13	Response to RAM Completion & PSS Comments	0 days	Fri 2/11/22	Fri 2/11/22
14	RAM Completion and Permanent Solution & RTN Closed	0 days	Thu 1/13/22	Thu 1/13/22
15	**RAM ACTIVITIES**	**224 days**	**Mon 3/15/21**	**Sun 10/17/21**
16	Soil Stockpile Removal	60 days	Mon 3/15/21	Tue 5/11/21
17	RAM Status Report	0 days	Mon 3/29/21	Mon 3/29/21
18	Firing Range Soil Stabilization	14 days	Wed 5/12/21	Tue 5/25/21
19	Firing Range Soil Removal	30 days	Tue 5/25/21	Wed 6/23/21
20	Remaining Excess Soil Removal	120 days	Wed 6/23/21	Sun 10/17/21
21	RAM Status Report	0 days	Sat 9/18/21	Sat 9/18/21

RAM Status Report
Mon 3/29/21

RAM Status Report
Sat 9/18/21

Today

Apr '21 | May '21 | Jun '21 | Jul '21 | Aug '21 | Sep '21 | Oct '21 | Nov '21 | Dec '21 | Jan '22 | Feb '22

Start
Mon 3/15/21

Finish
Fri 2/11/22

RAM ACTIVITIES
Mon 3/15/21 - Sun 10/17/21

Soil Stockpile Removal
Mon 3/15/21 - Tue 5/11/21

Firing Ra
Wed 5/12/

Firing Range Soil Remov
Tue 5/25/21 - Wed 6/23/2

Remaining Excess Soil Removal
Wed 6/23/21 - Sun 10/17/21

PUBLIC INVOLVEMENT ACTIVITIES
Thu 3/18/21 - Fri 2/11/22

Public Comment Period
Fri 3/19/21 - Mon 4/26/21

Public Commen
Wed 6/30/21 -

Public Commen
Fri 11/26/21 - W

Draft PIP Meeting
Thu 3/18/21

End of Public Comment Period
Tue 4/27/21

Final PIP Issued
Tue 5/25/21

Response to PIP Comments
Wed 6/23/21

Downgradient Property Status Public Meeting (approx)
Wed 6/30/21

Final DPS Filed
Tue 8/17/21

Response to DPS Comments
Wed 9/15/21

RAM Completion Report and Permanent Solution Public Meeting (approx)
Fri 11/26/21

RAM Completion and Permanent Solution & RTN Closed
Thu 1/13/22

Response to RAM Completion & PSS Comments
Fri 2/11/22