PERMANENT SOLUTION WITH NO CONDITIONS STATEMENT

RTN 4-29773
Solar Carver 1
Tremont Street
Carver, Massachusetts

Project No. R2021054.002
March 29, 2023

Prepared for

Pine Gate Renewables, LLC
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ACKNOWLEDGMENT

This Permanent Solution with No Conditions (PSNC) Statement for RTN 4-29773, the property addressed 0 Tremont Street in Carver, Massachusetts (Parcel ID 127-21), has been prepared for the sole and exclusive use of Pine Gate Renewables, LLC (Client). This report is subject to and issued in connection with a Letter-Agreement between Mabbett & Associates, Inc. (Mabbett®) and the Client dated December 13, 2022. Any use or reliance upon information provided in this plan, without the specific written authorization of the Client and Mabbett, shall be at the User's sole risk.

The findings, observations, and conclusions presented in this plan are limited by the scope of services outlined in our Letter-Agreement which reflect schedule and budgetary constraints. The professional opinions and findings presented in this plan are based on the facts and information conveyed to or observed by Mabbett during completion of this project. Furthermore, assessment and field operations have been performed in accordance with generally accepted engineering practices. No other warranty, expressed or implied, is made.

This PSNC Statement is based solely upon the laws and regulations existing as of the date of this report as well as limited information gathered to date. Should further environmental or other relevant information be developed at a later date, the Client should bring such information to the attention of Mabbett as soon as possible. Based upon an evaluation, Mabbett may modify this report and its conclusions.

The plan was prepared by the following Mabbett & Associates, Inc. personnel:

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1.0 INTRODUCTION

Mabbett & Associates, Inc. (Mabbett) has prepared this Permanent Solution with No Conditions (PSNC) Statement on behalf of Pine Gate Renewables, LLC (Pine Gate), the property owner, documenting the results of field sampling and risk characterization activities completed at the proposed solar development referred to as Solar Carver 1 (SC1) on the property addressed 0 Tremont Street (Carver Assessor's Office Parcel No. 127-21) in Carver, Massachusetts (the "Site"). A release of arsenic to soil was reported to the Massachusetts Department of Environmental Protection (MassDEP) on March 24, 2023 following the review of soil sampling results from the Site. MassDEP subsequently assigned Release Tracking Number (RTN) 4-29773 to the release.

Since this PSNC Statement is being submitted to the MassDEP within 120 days of the release notification date, no Permanent Solution submittal fee applies.

The name, address, and phone number of the person undertaking response actions at the Site are as follows:

Pine Gate Renewables, LLC
Julianne Wooten, Vice President, Project Development
130 Roberts Street
Asheville, NC 28801
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2.0 RELEASE DESCRIPTION

In 2021 and 2022, Mabbett completed a soil, cranberry, and groundwater sampling program on behalf of Pine Gate as part of the continuing evaluation of potential impacts to environmental media from the installation and subsequent removal of wood poles treated with chromated copper arsenate (CCA) at the SC 1 solar development site in Carver, Massachusetts.

Mabbett collected soil samples from SC-1 on September 6, 2022. The September 2022 sampling event was a resampling effort to designed to verify the findings of an October 2021 investigation, which concluded that there were no significant impacts to the environment from the use of CCA-treated poles to support solar panels for the project. The resampling effort was performed as part of the ongoing transition from the use of wood poles to an alternate material. Soil samples were collected from the area around ten former wood pole locations: soil samples were collected from two depths at distances of 6 inches, 1 foot, 3 feet, and 6 feet from each former pole location.

The concentration of arsenic detected in one soil sample exceeded the Massachusetts Contingency Plan (MCP) Reportable Concentration for Category S-1 Soil (RCS-1). This sample was subsequently submitted for follow-up microscopic analysis, which identified several fragments of treated wood that are believed to be the source of elevated arsenic in the sample. Arsenic was not detected above laboratory reporting limits in either the groundwater or cranberry samples collected during 2022.

Mabbett submitted a Release Notification Form (RNF) BWSC-103 on behalf of Pine Gate on March 24, 2023 (Appendix A) to fulfill the 120-day reporting requirement. This release to the environment was subsequently assigned RTN 4-29773.

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3.0 SITE DESCRIPTION AND SURROUNDING RECEPTORS

The Site property is located at 0 Tremont Street in Carver, Massachusetts. It consists of 31.04 acres of land that is currently used as a cranberry bog and is being developed by Pine Gate as a dual-use solar project. The property is located approximately 1.4 miles north/northwest of Route 495. The property is identified by the Town of Carver Assessor's Office as Map 127, Lot 21. The Site's location is 41° 49' 23.88" N and 70° 45' 15.50" W. The elevation of the ground surface is approximately 69 feet above mean sea level (MSL). A Site Locus Map and Site Plan are presented Figures 3-1 and 3-2, respectively.

3.1 Receptors

According to the MassDEP Phase I Site Assessment Map (Figure 3-3), the Site is utilized as a cranberry bog. Wetlands are mapped south of the Site at Weweantic River Pond, as well as west of the Site on either side of Crane Brook. Most of the Site is located outside of the 100-year floodplain, with only a small portion of the southeastern corner of the property within the floodplain. There are no Areas of Critical Environmental Concern (ACEC) in the vicinity of the Site, nor are there any National Heritage & Endangered Species Program (NHESP) priority habitats of rare species or certified/potential vernal pools.

Below is a summary of the potential human and environmental receptors that exist on and near the Site:

On-Site Receptors: Future agricultural workers in the Site's cranberry bogs, construction workers installing solar panels, and future utility workers performing maintenance on the solar array.

Residential Population: The Site is located in a Residential Agricultural area of Carver, Massachusetts. There are approximately 11,000 people currently residing in Carver.

Institutions: The closest school is Wareham Middle School located approximately 4.8 miles southeast of the Site.

Surface Waters: The Weweantic River Pond is located approximately 400 feet south of the Site. There are also several reservoirs associated with flooding cranberry bogs in the Site vicinity.

Wetlands Habitat: Freshwater Forested/Shrub Wetlands are present west and south of the Site. The wetlands are classified as Palustrine scrub-shrub broad-leaved evergreen that is seasonally saturated ("PSS3Ba").

Drinking Water Supplies: The Site is located within the Plymouth/Carver Sole Source Aquifer, which provides a source of water to the Town of Carver. An Interim Wellhead Protection Area (IWPA) is mapped on the southern portion of the Site, which is associated with a non-commercial water well. Review of the Massachusetts Department of Environmental Management (DEM) well drilling log files indicated a public water supply well is present on the east adjacent property to the Site.

3.2 Applicable Soil and Groundwater Categories

The MCP establishes categories of groundwater and soil for use in the characterization of risk posed by contamination at a Site. When considering the use of Method 1 and Method 2 risk characterizations, it is necessary to categorize these media. When Method 3 is used to characterize risk, the groundwater categories are used to identify applicable or suitably analogous standards.

3.2.1 Soil Categories

The categorization of soils is based on the potential for exposure, considering both the current and reasonably foreseeable Site activities and uses. There are three soil categories: S-1, S-2, and S-3. Category S-1 is associated with the highest potential for exposure, and category S-3 the lowest potential for exposure. Several factors are considered when categorizing the soils at the Site. These include the type of receptor present at a Site, the frequency of use, the intensity of use, and the accessibility of the soil.

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For risk characterization purposes, soils at the disposal site may be classified as S-1, S-2, and/or S-3. Soil is classified as S-1 if either:

- The soil is "accessible" (zero to 3 feet and unpaved) and either the soil is currently used for growing fruits or vegetables for human consumption, or it is reasonably foreseeable that the soil may be put to such use; or a child's frequency or intensity of use is considered high and/or an adult's frequency and intensity of use are both considered to be high; or
- The soil is "potentially accessible" (3 feet to 15 feet and unpaved or zero to 15 feet and paved) and a child's frequency or intensity of use is considered to be high.

Soil is classified as S-2 if either:

- The soil is "accessible" and a child's frequency and intensity of use are considered low or children are not present at the disposal site and either (but not both) the adult's frequency or intensity of use is considered to be high; or
- The soil is "potentially accessible" and either (but not both) a child's frequency or intensity of use is considered to be high or children are not present at the disposal site and an adult's frequency and intensity of use are both considered to be high.

Soil is classified as S-3 if either:

- The soil is "accessible" and children are not present at the disposal site and an adult's frequency and intensity of use are both considered low; or
- The soil is "potentially accessible" and a child's frequency or intensity of use are both considered to be low; or a demonstration has been made that children are not present at the disposal site, and an adult's frequency and intensity of use are both considered to be low; or
- The soil is isolated (greater than 15 feet or under the footprint of a building or permanent structure), regardless of any receptor's frequency or intensity of use.

For this Site, considering the continued and future use of the Site for growing cranberries, the applicable soil category for accessible and potentially accessible soil would be S-1.

3.2.2 Groundwater Categories

The MCP identifies three types of applicable groundwater categories: GW-1, GW-2, and GW-3. One or more groundwater categories may apply at a given site. Groundwater category GW-1 is defined as a Current Drinking Water Source Area or a Potential Drinking Water Source Area as defined below:

A Current Drinking Water Source Area is defined as groundwater located:

- Within a Zone II of a public water supply;
- Within an IWPA of a public water supply;
- Within the Zone A of a Class A surface water body used for a public water supply; or
- Within 500 feet of a private drinking water supply well.

A Potential Drinking Water Source Area is defined as groundwater located:

- Within 500 feet or more from a public water system distribution pipeline; unless the groundwater is located under a parcel of land or a facility where any portion of that parcel of land or facility is located less than 500 feet from a public water supply distribution pipeline;
- Within an area designated by a municipally specifically for the protection of groundwater quality to ensure its availability for use as a source of potable water supply; and

- Within a Potentially Productive Aquifer (PPA) that has not been excluded as a Non-Potential Drinking Water Source Areas (NPDWSA).

Groundwater is classified GW-2 when it is located within 30 feet of a planned or existing occupied building or structure, and the average annual depth to groundwater in the area is 15 feet or less. Groundwater in this category could serve as a source of volatile contaminants to indoor air.

Groundwater category GW-3 applies to all groundwater in the Commonwealth based upon discharge to surface water because it is deemed that all groundwater ultimately discharges to a surface water body.

The Site is located within an Environmental Protection Agency (EPA)-designated Sole Source Aquifer. Therefore, groundwater category GW-1 applies to the Site. Because GW-3 applies to all groundwater in the Commonwealth, category GW-3 also applies to the Site.

The applicable MCP Method 1 risk characterization categories for groundwater at the Site are GW-1 and GW-3, whereas the applicable Method 1 soil categories are S-1/GW-1 and S-1/GW-3.

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4.0 CONCEPTUAL SITE MODEL

This section provides a summary of the conceptual site model as it relates to the release of arsenic (and other metals) to the environment at the Site.

4.1 Project Background

Pine Gate Renewables is constructing two new dual-use solar projects in Carver that will generate approximately 7 megawatts (MW) of solar energy. Solar Carver 1 (SC1) is being built on a 70-acre site located to the east of Tremont Street (Massachusetts Route 58), south of its intersection with South Main Street. Solar Carver 3 (SC3) is being built on a 35-acre site approximately 0.5 miles to the northwest of SC1 along Rochester Road. The disposal site being addressed in this PSNC is located on the southernmost 31-acre parcel on the SC1 project site.

The projects include the installation of solar panels within active cranberry bogs. The dual-use aspect of the project will provide for the continued cultivation of cranberries from the bogs that are developed for solar energy generation. In order to address structural challenges and the corrosive properties of the peat underlying the bogs, the project design specified the use of CCA-treated wooden poles to support the solar array. In 2021, approximately 3,500 wooden poles were installed at SC1 and SC3.

In late 2021, members of the public expressed concern over the installation of treated timbers into the cranberry bogs. Concerns centered around the potential for the leaching of arsenic, copper, and/or chromium from the poles into the Plymouth/Carver Sole Source aquifer. In October 2021, Pine Gate designed a soil, cranberry, and groundwater testing program to demonstrate that any leaching of metals from the poles to the surrounding environment would be limited to a small radius immediately adjacent to the poles, that the geochemical composition of the metals would render them immobile in the environment, and that there was not threat of groundwater contamination due to the installation of wood poles. The results of this investigation, presented in Section 4.2 below, provided favorable evidence that impacts to the environment from the use of CCA-treated poles would be minimal and the potential for groundwater contamination was infinitesimal.

In December 2021, after discussions with Town officials and despite the findings of the October 2021 investigation, Pine Gate elected to change the design of the project, remove the wood poles, and replace them with an alternative material. Removal of poles commenced in the spring of 2022. In September 2022, Pine Gate repeated the soil, cranberry, and groundwater sampling program that was performed in October 2021 to verify the findings of the prior study and demonstrate the continued lack of impacts from the installation of treated wood poles. During this sampling event, the concentration of arsenic detected in one of the soil samples exceeded the Reportable Concentration for Category S-1 soil (RCS-1), representing a 120-day reporting condition under the MCP. The results of this sampling event are provided in Section 4.2 below.

4.2 Environmental Sampling Results

As discussed in the previous section, two sampling events have been completed at SC1 and SC3 to evaluate potential impacts to the environment from the installation of CCA-treated wood poles at these projects.

4.2.1 October 2021 Event

The October 2021 study consisted of collecting soil and cranberry samples from several distances (and from two depth intervals) adjacent to ten installed poles. Soil and cranberry samples were collected around each pole at distances of 6 inches, 1 foot, 3 feet, and 6 feet from the pole. Soil and cranberry samples were also collected from bogs which had not been developed with poles to provide background or reference concentrations of metals in environmental media in undeveloped bogs.

Soil and cranberry samples were analyzed for the presence of arsenic, chromium, and copper. Soil samples were also submitted for speciation analysis to determine whether chromium was present in its more toxic and more

mobile hexavalent state, and for analysis of pH and oxidation-reduction potential (ORP). A subset of the soil samples were also submitted for arsenic speciation analysis.

Soil analytical results were compared to natural background concentrations of metals in soil within the Commonwealth of Massachusetts (MassDEP, 2002). All detected results were well below MassDEP-derived natural background concentrations and there was no significant difference between the concentrations detected in soil samples collected adjacent to the poles and the soil samples collected from bogs that are not developed with poles. Total arsenic was only detected in two out of 88 soil samples collected during the study. Trace levels of chromium were detected in all of the soil samples, including those collected from the bogs without poles, but no hexavalent chromium was detected in any of the soil samples.

Each soil sample was analyzed by the laboratory to determine its pH and ORP. The pH reported in the soil samples indicated they were slightly acidic. The ORP results showed that the soil is oxygenated and not reduced. Both of these conditions would tend to limit the mobility of metals in the environment. The arsenic speciation data collected during this study provided further evidence to support this assumption, since in most samples over 90 percent of the arsenic detected was in the less toxic pentavalent oxidation state (As[V]).

Arsenic was not detected in any of the cranberry samples. Only one out of the original 44 samples of cranberries contained trace levels of chromium or copper; the other 43 cranberry samples did not contain detectable levels of chromium or copper. Cranberries from the location at which the single detection of chromium and copper was encountered were resampled and neither chromium nor copper were detected in the second sample.

The study also included the advancement of six soil borings (three at each project) and installation of six shallow (15 feet below ground surface) groundwater monitoring wells. Groundwater samples were collected from each well for laboratory analysis of total arsenic, chromium, and copper. None of these metals were detected above Massachusetts drinking water standards. These wells are located outside of the bogs and impacts from CCA poles were not be anticipated given the short period of time that had elapsed since their installation, therefore these groundwater results were considered to represent natural background conditions.

Based on the interpretation of groundwater elevations within each study area, the direction of groundwater flow in the shallow overburden aquifer in SC1 was inferred to be toward the southwest and in SC3 shallow overburden groundwater was inferred to flow toward the southeast. A memorandum providing the results of the October 2021 investigation is provided in Appendix B.

4.2.2 September 2022 Event

The September 2022 study was a follow up to the sampling program completed in October 2021. Approximately 11 months later, after all of the poles had been removed, Pine Gate returned to the same ten former pole locations (and control locations in undeveloped bogs) to duplicate the October 2021 soil and cranberry sampling program. Soil and cranberry samples were analyzed for the presence of arsenic, chromium, and copper. Speciation of metals was not repeated during the 2022 investigation. The groundwater resampling effort involved the collection of groundwater samples from the six shallow monitoring wells installed in October 2021.

Soil analytical results were compared to RCS-1 and natural background concentrations of metals in soil (MassDEP, 2002). All but two soil samples (86 of 88 collected during the study) contained non-detectable concentrations of arsenic and concentrations of chromium and copper below natural background levels. In one soil sample collected from 3- to 6-inches below ground surface on SC1, the concentration of arsenic exceeded RCS-1 and the concentration of copper exceeded the MassDEP background level for natural soil. The second arsenic detection was in a sample collected from the 0- to 3-inch interval at this same location; in this sample arsenic and copper were detected at concentrations higher than the other samples collected during the study but below MCP reportable concentrations and MassDEP background levels. The sample containing the reportable concentration of arsenic was submitted for follow-up microscopic analysis by Scanning Electron Microscopy with Energy

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Dispersive X-ray Spectroscopy (SEM/EDS), which identified several fragments of treated wood that are believed to be the source of elevated arsenic and copper in the sample.

Arsenic, chromium, and copper were not detected above laboratory reporting limits in any of the cranberry or groundwater samples. The groundwater flow direction inferred from groundwater level measurements collected during the sampling event was consistent with the observations made in October 2021. A memorandum providing the results of the September 2022 investigation is provided in Appendix B.

Mabbett prepared a Release Notification Form (RNF) on behalf of Pine Gate and submitted it to MassDEP on March 24, 2023 to notify the Department of the 120-day release of arsenic to soil.

4.3 Site History

Based on a cursory review of historical aerial photographs, the parcel upon which the SC1 project is being built has been used as for agricultural purposes since at least 1960. A review of historical topographic maps suggests that the cranberry bog may have initially been developed in the late 1930s. Based on these sources, it appears that there has never been any development of permanent structures on this parcel. The property located to the immediate west of the parcel (currently used as a farm stand) has been developed since at least 1950.

4.4 Contamination Sources

The source of the arsenic detected in soil is the CCA used to treat the poles installed to support the project. CCA contains arsenic in its arsenate valence state, As(V) or pentavalent arsenic, which tends to be its less toxic form. Soil samples collected from the Site have indicated that the arsenic detected in soil is predominantly pentavalent arsenic, consistent with the form or arsenic contained in the treated poles. The source of contamination was removed in 2022 by Pine Gate after the design of the project was modified to use an alternative material to support the solar panels.

4.5 Nature and Extent of Contamination

The nature and extent of contamination is limited to one sample point containing arsenic above RCS-1. This location was approximately 3 inches from a former pole location. Impacts were observed to a depth of approximately 6 inches below ground surface.

Although sampling has not been conducted at the perimeter of all of the wood poles installed for the project, environmental sampling data collected during the two investigations suggests that metals impacts above background (if any) would be limited to within 6 inches of former pole locations. The patterns observed at the perimeter of the poles that were the focus of sampling efforts are assumed to be representative of conditions adjacent to all of the poles installed throughout SC1 and SC3.

Sampling efforts have documented that cranberries and shallow groundwater have not been impacted by arsenic or other metals contained in the treated poles.

4.6 Fate and Transport of Contaminants

As evidenced by the soil samples collected in September 2022, in the year since installation of the wood poles, significant concentrations of arsenic have not migrated into the soils adjacent to the poles. However, microscopic wood pole fragments present in the soil matrix contain arsenic and can be inadvertently included in soil samples, generating a result that is not representative of soil concentrations. Wood fragments may have been released into the soil during installation or removal of the poles.

Arsenic that is bound up in wood fragments will tend not to partition to soils or leach into groundwater. Instead, the wood fragments are expected to have limited mobility in the environment. Furthermore, even if released to the environment, the form of arsenic present in the CCA coating (arsenate) tends to be less toxic than other forms

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of arsenic and the geochemistry in the bogs is not conducive to mobilizing arsenic in the environment. As a result, significant migration of arsenic is not anticipated and impacts to cranberries and groundwater are highly unlikely.

4.7 Potential Receptors

Potential receptors to soil impacted by arsenic include construction workers and future agricultural workers or utility workers performing maintenance on the solar array. There is no residential or recreational use of the Site anticipated in the reasonably foreseeable future. There are no sensitive ecological receptors on the Site.

4.8 MCP-Specific Evaluations

4.8.1 Imminent Hazard Evaluation

Under the MCP, an Imminent Hazard (IH) is defined as a hazard that would pose a significant risk of harm to health, safety, public welfare or the environment if it were present for even a short period of time. Disposal site conditions following the release did not constitute an IH as defined in 310 CMR 40.0006. Specifically, the release did not result in the presence of vapors within a building equal to or greater than 10 percent of the Lower Explosive Limit, result in a release of reactive or explosive material, result in a release to a public roadway which endangered public safety, result in immediate or acute adverse impacts to fresh or saltwater fish populations, or pose a significant risk to human health when present for even a short period of time. Consequently, a formal IH Risk Characterization, as defined in 310 CMR 40.0955, was not conducted for this release.

4.8.2 Critical Exposure Pathway Evaluation

A Critical Exposure Pathway (CEP), as defined in 310 CMR 40.0006, means those routes by which oil and/or hazardous materials (OHM) released at a disposal site are transported, or are likely to be transported, to human receptors via:

- Vapor-phase emissions of measurable concentrations of OHM into the living or working space of a pre-school, daycare, school or occupied residential dwelling; or
- Ingestion, dermal absorption, or inhalation of measurable concentrations of OHM from drinking water supply wells located at and servicing a pre-school, daycare, school or occupied residential dwelling.

The Site is currently utilized for the agricultural use of growing cranberries and is being developed as a solar energy project. The release did not occur within or adjacent to any structures. Specifically, arsenic was released to soil adjacent to one of the CCA-treated poles that has since been removed from the Site.

The Site is located within a Sole Source Aquifer that provides a source of drinking water to the Town of Carver. However, based on groundwater sampling results the drinking water supply well exposure pathway is not considered to be complete for the Site and therefore a CEP is not present with respect to groundwater.

As the Site is not developed with any structures, the indoor air exposure pathway is not considered to be complete for the Site and a CEP is not present with respect to indoor air.

4.8.3 Substantial Release Migration Evaluation

Under the MCP, a Substantial Release Migration (SRM) is defined as the presence of one or more of the following conditions at a disposal site:

- Releases of NAPL to surface waters, subsurface structures, underground utilities or conduits;
- Releases to the ground surface or vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;
- Releases to groundwater that have migrated or area expected to migrate more than 200 feet per year;

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- Releases to the groundwater that have been or are within one year likely to be detected in a public or private drinking water well;
- Releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir; or
- Releases to the groundwater or to the vadose zone that have resulted or are within one year likely to result in the discharge of vapors into school buildings or occupied residential dwellings.

Considering the information presented herein, Mabbett concludes that a condition of SRM is not currently present at the Site.

4.8.4 Remediation Waste Management

No remediation wastes were produced associated with this release.

5.0 DATA USABILITY EVALUATION

This section provides a review of laboratory analytical data for the Site and evaluates Presumptive Certainty and Data Usability. In accordance with the MCP (310 CMR 40.1056(2)(k)) and MassDEP Policy WSC-07-350, and as described below, Mabbett concludes that the data sets are spatially and temporally adequate, and the data are scientifically valid and defensible and of a sufficient level of precision, accuracy, and completeness, to support the Permanent Solution.

5.1 Representativeness Evaluation

The nature of the release and the observations made during sampling are consistent with the type and level of contamination identified in the analytical data and the conceptual site model. Sufficient spatial and temporal data are available at locations appropriate to characterize the release and to represent current conditions so that conclusions may be rendered with respect to human health risks for the receptors identified, and to support the Permanent Solution. This opinion considers the fact that sampling results obtained from other parcels on the SC1 and SC3 projects established a pattern of contamination that is representative of conditions on the disposal site since the materials, installation methods, soil types, and geochemical conditions are essentially the same as those observed on the disposal site.

Soil data was obtained and analyzed in accordance with the requirements of the MassDEP Compendium of Analytical Methods (CAM), and the laboratory certified that those data meet the requirements for Presumptive Certainty for the sensitivity, accuracy, and precision of the data.

5.2 Data Usability Assessment

Soil samples were submitted for laboratory analysis to characterize the levels of contamination at the perimeter of treated wood poles installed to support the project. These data have been evaluated in accordance with the MCP and MassDEP Policy WSC-07-350. In accordance with MassDEP guidelines, Mabbett concludes that the analytical data for soil are suitable and usable for Site characterization and risk characterization under the provisions of the MCP.

Mabbett's review of laboratory data reports indicate that Presumptive Certainty has been achieved. Mabbett reviewed data collected at the Site. The data relied upon is scientifically valid and defensible and of a sufficient level of precision, accuracy, and completeness to support the Permanent Solution. The data is also adequate both spatially and temporally and is representative of Site conditions, as described in Section 5.1.

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6.0 RISK CHARACTERIZATION

Under the MCP, the characterization of risk of harm to health, safety, public welfare and the environment is required for sites where the concentrations of contaminants have not been reduced to background levels. There are three methods available for performing a risk characterization:

- Method 1 allows for the comparison of the concentrations of contaminants in soil and/or groundwater (and no other media) to standards that the MassDEP has established for any site in Massachusetts.
- A Method 2 risk characterization can also be used for soil and groundwater. It supplements and modifies Method 1 standards with Site- and chemical-specific information.
- A Method 3 risk characterization relies on detailed information about a specific Site, the OHM present in the environment at the Site, and potential exposures to human and environmental receptors under all current and reasonably foreseeable Site activities and uses to characterize the risk of harm posed by the identified contaminants. Method 3 can be used for soil and groundwater but also can be used to assess other media such as indoor air, surface water, and sediments for which no Method 1 standards exist.

Mabbett determined that a Method 1 Risk Characterization is appropriate for evaluating risk at the Site because the presence of OHM at the Site is limited to soil and the contaminant of potential concern at the Site is arsenic, for which a Method 1 standard is available.

The conclusions presented in this Permanent Solution Statement are based upon the Method 1 Risk Characterization presented in the following subsections, which demonstrates that a condition of No Significant Risk (NSR) of harm to health, safety, public welfare, and the environment exists at the disposal site.

6.1 Source, Nature, and Extent of Release

As described in Section 2.0, RTN 4-29773 is associated with the release of arsenic from a CCA-treated wood pole in SC1. Following a soil resampling effort, arsenic was detected exceeding RCS-1 in one soil sample at SC1 in 2022. This sample was subsequently submitted for follow-up microscopic analysis, which identified several fragments of treated wood that are believed to be the source of elevated arsenic in the sample. The wood fragments are believed to have been released to the soils adjacent to the poles during installation or removal of the wood poles. As of the end of 2022, all of the treated wood poles installed for the project have been removed.

No other soil samples collected from the SC1 or SC3 projects in 2021 or 2022 contained levels of arsenic that exceeded RCS-1. Over 160 soil samples were collected from similar geological settings with similar geochemical conditions, into which treated wood poles were installed and removed using the same methods, to demonstrate a pattern of potential impacts that is considered representative of conditions around all of the poles installed for the project. Therefore, the nature and extent of contamination at the Site is assumed to be limited to one sample point containing arsenic above RCS-1. This location was approximately 3 inches from a former pole location. The assumed extent of the disposal site is shown on Figure 3-2.

Cranberry and groundwater samples collected from the project has demonstrated that neither medium has been impacted by the release of arsenic to soil.

6.2 Background Concentrations

Most of the soil samples collected during the two investigations contained undetectable concentrations of arsenic with reporting limits between 3.0 mg/kg and 5.0 mg/kg. The background concentration of arsenic in soil at the disposal site is therefore assumed to be within this range or lower.

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6.3 Hazard Identification

The objective of the Hazard Identification is to present the available sampling data and select the COPCs for each medium of concern. In accordance with MCP guidance (MassDEP, 1995), each detected compound should be considered a COPC unless one of the following conditions is true:

- The chemicals are present at a low frequency of detection and in low concentration; or
- The chemicals are present at levels that are consistent with "background" concentrations for the area and there is no evidence that their presence is related to activities at the Site; or
- The chemicals are field or laboratory contaminants.

As discussed previously, the only contaminant present at the Site above RCS-1 is arsenic and the only impacted medium is soil. The concentrations of chromium and copper detected in soil samples are generally consistent with background, however since a limited number of samples exhibited concentrations that appear to be related to the use of CCA-treated poles, these metals have also been retained as COPCs.

6.4 Exposure Assessment

The objective of the Exposure Assessment is to qualitatively describe the settings and conditions under which human exposures to Site OHM may reasonably be expected to occur. Achieving this goal entails the identification of receptors that may be on-Site, evaluation of exposure pathways, and the calculation of Exposure Point Concentrations (EPCs) to which receptors may be exposed.

6.4.1 Identification of Receptors

For the purposes of this risk assessment, Mabbett assumed that no activity and use limitations or deed restrictions would be placed on the Site that would prevent exposure of future receptors to Site soils located at any depth or would prevent the Site from being used for any purpose where young children may be routinely present. Therefore, both current receptors (workers, trespassers) and potential future receptors (e.g., future construction workers, utility workers) were assumed to have an exposure to surface and subsurface soil at any depth under future scenarios. Considering the current and future use of the Site, residential and recreational use are not considered viable for the foreseeable future.

6.4.2 Evaluation of Exposure Pathways

The exposure pathway describes how a receptor may contact contaminants at a site. The exposure pathways identified for analysis in this Method 1 Risk Characterization are the inadvertent ingestion of constituents in soil, the dermal absorption of constituents from soils in contact with the skin, and the inhalation of airborne particulates. Each of these potential exposure pathways are accounted for in the development of Method 1 risk assessment standards. Therefore, compliance with these standards would demonstrate protectiveness for these exposure pathways.

As previously mentioned, groundwater was excluded as a medium of concern from the risk assessment because it has not been impacted by the Site release. Vapor intrusion impacts are not considered because arsenic (and other metals) are not volatile constituents. Therefore, vapor intrusion into future potential buildings is not considered to be a complete exposure pathway.

6.4.3 Exposure Point Concentrations

EPCs are the concentrations of OHM in Site media that are representative of the concentrations a receptor may be exposed to over the course of an exposure. EPCs are calculated separately for each OHM in each medium. The soil analytical data presented in Table 6-1 were evaluated for the development of EPCs. These data include only the results obtained from sampling within bog SC1-S1 during the September 2022 event, where and when the reportable concentration of arsenic was detected. This is considered a conservative assumption since it excludes

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soil sampling data that was collected during the first event and from other bogs at SC1 (or SC3) that were subject to similar conditions and provide evidence that significant migration of metals from treated poles to the surrounding environment is not occurring and would therefore dilute the impacts of the elevated concentrations of arsenic detected in the sample from SC1-S1.

Hot Spots. A hot spot is defined as a discrete area where concentrations of OHM or the thickness of LNAPL are substantially higher than those present in the surrounding area. A hot spot can be identified based on consideration of both the concentrations or thickness of an OHM within a contaminated area and the spatial pattern of that contamination. In general, a discrete area where the average concentration is greater than ten (10) but less than 100 times the average concentration in the immediate surrounding area is considered a hot spot, unless there is no evidence that the discrete area would be associated with greater exposure potential than the surrounding area. Based on this criterion, there are no hot spots on the Site.

EPC for Soil. Pursuant to 310 CMR 40.0926(3)(b), the EPCs for arsenic, chromium, and copper were calculated as the arithmetic mean of concentrations detected during the September 2022 event from SC1-S1. For the purposes of calculating averages, the concentration of non-detect samples was assumed to be the laboratory reporting limit. The EPCs calculated are as summarized in the table below.

COPC	EPC (mg/kg)	Background (mg/kg)	Method 1 S-1/GW-1 (mg/kg)	Method 1 S-1/GW-3 (mg/kg)
Arsenic	8.4	20	20	20
Chromium	5.4	30	100	100
Copper	13.0	40	NA	NA

6.5 Risk Characterization

The Method 1 Risk Characterization compares the Site EPCs to promulgated MCP Method 1 standards. As shown in the table above, the EPCs for arsenic and chromium are well below their Method 1 S-1/GW-1/GW-3 standards. The EPC for arsenic, chromium, and copper are all below published background levels for soils in the Commonwealth (MassDEP, 2002). Therefore, a level of No Significant Risk of harm to human health, public welfare, and the environment has been achieved for all current and reasonably foreseeable future conditions.

6.6 Uncertainty Analysis

This risk assessment is based on several assumptions, most of which are intended to be protective of human health. Site-specific uncertainties can include incomplete delineation of the Site or sample results that do not adequately reflect site conditions.

The characterization of risks relies on the data from eight soil samples collected from the disposal site. Mabbett used this data to delineate the disposal site boundaries. Soil samples were analyzed for the presence of arsenic, chromium, and copper, which are the primary hazardous constituents contained within the treated coating of the wood poles that were installed at the project. The number of soil samples and the type of analyses are considered appropriate for the size and magnitude of the release. Knowledge gained from the collection of soil samples in other bogs within the SC1 project and in the SC3 project was used to mitigate some of the uncertainty associated with the limited number of samples collected from the disposal site since these data establish a pattern that applies directly to the conditions observed at the disposal site.

Most of the assumptions incorporated into this risk assessment were inherently conservative. Specifically, the Method 1 standards are derived to be protective of human health for the most sensitive receptors (children and pregnant women), even though the foreseeable use of the Site suggests these receptors will not be present. The risk assessment considered a full range of exposures and the most conservative future use scenario (residential), even though residential use is not considered a viable potential future use scenario. Even with these conservative assumptions, the risk assessment conclusions support unrestricted use of the Site.

6.7 Characterization of Risk of Harm to Safety

The risk of harm to safety, as described in 310 CMR 40.0960 of the MCP, was evaluated for RTN 4-29773. The following observations concerning the Site apply to release-related conditions at the Site and the relevant criteria set forth in Section 40.0960 of the MCP:

- There are no rusted or corroded drums or containers, open pits, lagoons, or other dangerous structures at the Site.
- There is no threat of fire or explosion from the presence of explosive vapors resulting from a release of OHM at the Site.
- There are no containerized materials at the Site exhibiting the characteristics of corrosivity, reactivity, or flammability.

As none of the criteria above are present at the disposal site, there is not a risk of harm to safety due to release-related conditions associated with RTN 4-29773.

6.8 Conclusions of the Risk Characterization

The Method 1 Risk Characterization demonstrates that a condition of No Significant Risk to human health, public welfare, safety, and the environment exists at the Site. No EPC exceeds the applicable Method 1 standards. The public safety evaluation concludes that NSR to public safety is present.

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7.0 PERMANENT SOLUTION STATEMENT WITH NO CONDITIONS

This section provides the information required to support a Permanent Solution described in 310 CMR 40.1056, including a demonstration that a condition that No Significant Risk exists, that sources have been eliminated or controlled, and that completion of additional response actions to achieve or approach background are not required.

7.1 Permanent Solution Category and Site Boundaries

This Permanent Solution Statement applies to the entire disposal site, as shown on Figure 3-2. As documented in this report, a Permanent Solution with No Conditions is applicable because:

- A level of No Significant Risk to human health, public welfare, safety, and the environment has been achieved.
- A level of No Significant Risk will be maintained for all current and foreseeable future uses of the Site without relying upon: 1) assumed limitations on current or future site activities, uses or conditions, that require an Activity and Use Limitation, or 2) assumed limitations on current or future site activities, uses or conditions, that do not require an Activity and Use Limitation.
- OHM concentrations do not exceed an applicable Upper Concentration Limit in Soil or Groundwater listed at 310 CMR 40.0996(6).
- All sources of OHM contamination have been eliminated.
- The level of OHM concentrations in the environment have been reduced such that they approach background levels.

The disposal site boundary defined for MassDEP RTN 4-29773 was delineated using soil sampling data collected during the Sepember 2022 event. Within the area depicted on Figure 3-2, the disposal site boundary extends vertically to a depth of 6 inches.

7.2 Demonstration of No Significant Risk

A Method 1 Risk Characterization was prepared to evaluate the degree of risk to human health, safety, public welfare, and the environment from arsenic, chromium, and copper in soils following the removal of wood poles. As presented in Section 6.0 of this report, the Method 1 Risk Characterization concludes that a condition of No Significant Risk has been achieved at the Site under both current and future unrestricted site activities and uses.

7.3 Demonstration that Sources Are Eliminated

To achieve Permanent Solution, all continuing sources of OHM which are resulting or are likely to result in an increase in concentrations of OHM in an environmental medium must be eliminated or controlled. Release conditions at the Site are presumed to be attributable to the former use of CCA-treated wood poles. These poles have since been removed from the Site. Therefore, the potential for future arsenic impacts to other environmental media at the Site has been eliminated.

7.4 Feasibility of Achieving Background

As shown in Table 6-1, the average concentrations of arsenic, chromium, and copper are similar to natural background.

7.5 Operation, Maintenance, and Monitoring Requirements

No operation, maintenance, or monitoring will be required to confirm or maintain those conditions at the Site upon which this Permanent Solution Statement is based. A Permanent Solution with No Conditions, as defined in 310 CMR 40.1040, has been achieved at the Site, and therefore is not contingent on any post-closure operation, maintenance, and/or monitoring.

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8.0 CONCLUSIONS AND LSP OPINION

As described in Section 2.0, RTN 4-29773 is associated with the release of arsenic to soils from a CCA-treated wood pole. The concentration of arsenic in the soil sample that triggered the 120-day release was determined to be the result of treated wood fragments that were released to the soil during installation and/or removal of the poles from the ground. The fact that arsenic is bound to wood fragments, present in the treated wood and in soil samples in its pentavalent state, and geochemical conditions in the bogs are not conducive to mobilizing metals renders the release highly unlikely to migrate or leach into the underlying groundwater.

The extent of arsenic impacts above RCS-1 is limited to a single sampling point. The arithmetic average of arsenic concentrations within the disposal site (as well as chromium and copper, which are also present in the treated wood poles) is well below applicable Method 1 risk assessment standards and Massachusetts published background levels. Based on the results of the Method 1 Risk Characterization, a level of NSR of harm to human health, safety, welfare and the environment has been achieved for the disposal site.

Mabbett concludes that:

- A Permanent Solution has been achieved.
- The concentrations of arsenic, chromium, and copper (the metals present in the CCA coating that is assumed to be the source of contamination) present at the Site are consistent with natural background.
- Based on the Method 1 Risk Characterization, an AUL is not required to maintain a level of No Significant Risk pursuant to 310 CMR 40.1012(2).

Therefore, a Permanent Solution Statement with No Conditions is appropriate for the disposal site pursuant to 310 CMR 40.1041(1). No additional response actions are necessary to maintain a condition of No Significant Risk, and no Operation, Maintenance, or Monitoring activities are required to confirm or maintain those conditions at the Site upon which this Permanent Solution is based.

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9.0 PUBLIC INVOLVEMENT ACTIVITIES

In accordance with 310 CMR 40.1403(3)(f), the Select Board of the Town of Carver and the Carver Board of Health have been provided a notification regarding the submittal of this Permanent Solution Statement. Copies of these letters are provided as Appendix C.

10.0 REFERENCES

Massachusetts Department of Environmental Protection (MassDEP), 1995. Guidance for Disposal Site Risk Characterization - In Support of the Massachusetts Contingency Plan. July.

MassDEP, 2002. Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil. May.

MassDEP, 2010. Guidance on Implementing Activity and Use Limitations Policy #WSC 11-300. December 2010.

MassDEP, 2014. 310 CMR 40.0000, the Massachusetts Contingency Plan. Effective June 20, 2014.

MassDEP, 2016. Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure WSC#- -16-435. October 2016.

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TABLES

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Table 6-1
Exposure Point Concentration Calculation
Solar Carver 1
RTN 4-29773
Carver, Massachusetts

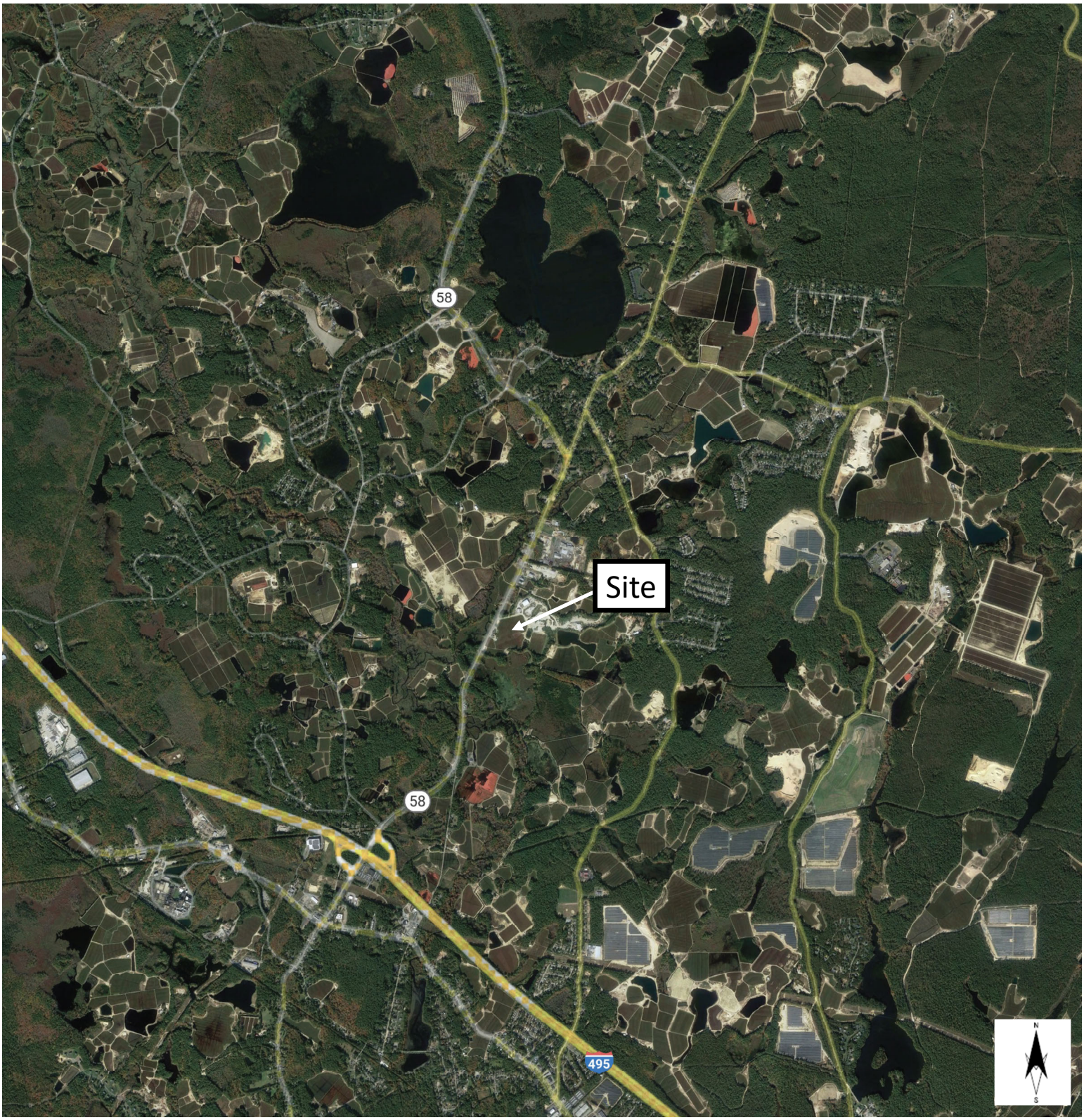
Analyte:			Arsenic	Chromium	Copper					
MCP Reportable Concentration for Category S-1:			*20*	*100*	*1000*					
MassDEP Background Levels in Natural Soil:			*20*	*30*	*40*					
SAMPLE ID	**SAMPLE DATE**	**MEDIUM**				**PROJECT**	**BOG**	**POLE**	**DISTANCE (in)**	**DEPTH (in)**
Surficial Soil Samples Collected Adjacent to CCA-Treated Poles in SC1 (Tremont)										
SC1-S1-SO-P500-0003	6-Sep-22	Soil	**14**	**9.6**	**21**	SC1	SC1-S1	P5	6	0-3
SC1-S1-SO-P500-0306	6-Sep-22	Soil	**24**	**14**	***44***	SC1	SC1-S1	P5	6	3-6
SC1-S1-SO-P501-0003	6-Sep-22	Soil	<5.3	**3.7**	**9.8**	SC1	SC1-S1	P5	12	0-3
SC1-S1-SO-P501-0306	6-Sep-22	Soil	<4.6	**3.2**	**5.8**	SC1	SC1-S1	P5	12	3-6
SC1-S1-SO-P503-0003	6-Sep-22	Soil	<4.7	**2.9**	**5.3**	SC1	SC1-S1	P5	36	0-3
SC1-S1-SO-P503-0306	6-Sep-22	Soil	<4.4	**3.3**	**6.7**	SC1	SC1-S1	P5	36	3-6
SC1-S1-SO-P506-0003	6-Sep-22	Soil	<4.9	**3.2**	**4.3**	SC1	SC1-S1	P5	72	0-3
SC1-S1-SO-P506-0306	6-Sep-22	Soil	<5.0	**3.4**	**7.4**	SC1	SC1-S1	P5	72	3-6
Arithmetic Mean			**8.4**	**5.4**	**13**					

Notes:
1. All concentrations provided in units of milligrams per kilogram (mg/kg) dry weight.
2. Yellow shading = exceeds RCS-1.
3. Arithmetic mean calculation assumes ND results are equivalent to the laboratory reporting limit.

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FIGURES

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SITE LOCUS

SC-1 Tremont
Carver, Massachusetts

Figure 3-1

Drawn: CEW	Approved: SAV
Image from Google Earth	
Proj. No. R2022042	Date: 3/29/2023



Document Path: Q:\Projects\Working Files\Design Documents\GIS\2021045_PinegateRenewables\mxd\SC1.mxd

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FIGURE 3-2
Site Plan
SC-1 Tremont

Drawn: DWM

Approved: SAV

Projection: NAD83 2011 -
MA StatePlane FIPS 2001 (US Feet)

Project No.
R2021054.002

Date: 3/29/2023

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

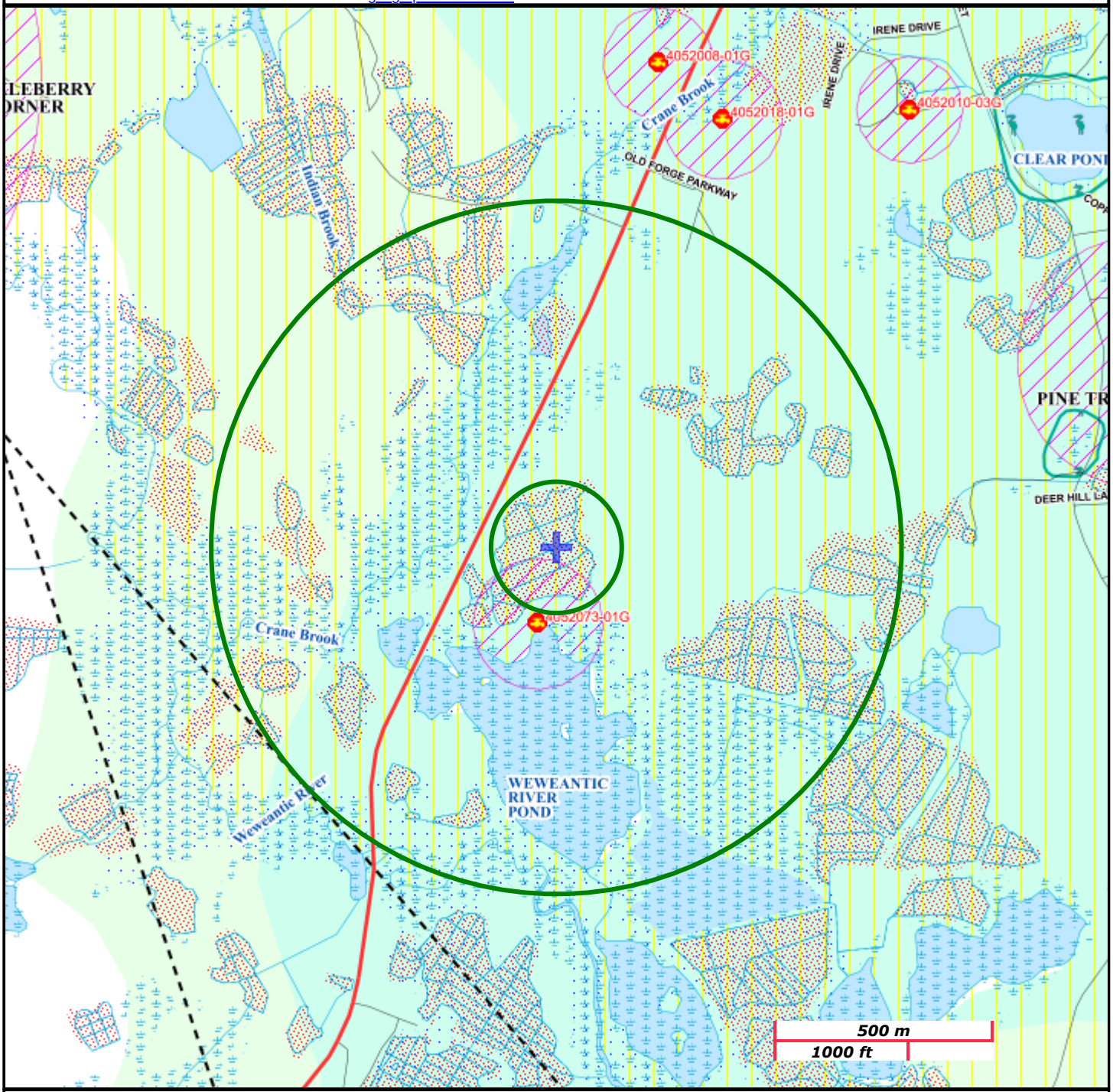
Site Information:

0 TREMONT STREET CARVER, MA

NAD83 UTM Meters:
4631625mN , 354309mE (Zone: 19)
January 3, 2023

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: https://www.mass.gov/orgs/massgis-bureau-of-geographic-information.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

NHESP Pri-Hab of Rare Species; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

APPENDIX A

BWSC Release Notification Form

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

RELEASE NOTIFICATION FORM

Pursuant to 310 CMR 40.0371 (Subpart C)

BWSC103-120 DAY

Release Tracking Number
assigned upon receipt and
review by the Department

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: SOLAR CARVER 1

2. Street Address: 0 TREMONT STREET

3. City/Town: CARVER 4. ZIP Code: 023300000

5. Coordinates: a. Latitude: N 41.82332 b. Longitude: W 70.75442

B. THIS FORM IS BEING USED TO:

☑ 1. Submit a **Release Notification** for a 120 day reporting requirement

(All sections of this transmittal form must be filled out)

C. INFORMATION DESCRIBING THE RELEASE:

1. Date and time you obtained knowledge of the Release: 12/8/2022 (mm/dd/yyyy) Time: 10:44 (hh:mm) ☑ AM ☐ PM

2. Date and time release occurred, if known: (mm/dd/yyyy) Time: (hh:mm) ☐ AM ☐ PM

3. 120 DAY REPORTING CONDITIONS

Check all Notification Thresholds that apply to the Release:
(for more information see 310 CMR 40.0315)

☑ a. Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)

☐ b. Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards

☐ c. Release of Oil to Groundwater Exceeding Reportable Concentration(s)

☐ d. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch (.01 feet) and Less than 1/2 Inch (.04 feet)

C. INFORMATION DESCRIBING THE RELEASE (cont.)

4. List below the Oils (O) or Hazardous Materials (HM) that exceed their Reportable Concentration (RC) or Reportable Quantity (RQ) by the greatest amount.

☐ Check here if an amount or concentration is unknown or less than detectable.

O or HM Released	CAS Number, if known	O or HM	Amount or Concentration	Units	RCs Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)
ARSENIC	7440-38-2	HM	24	PPM	RCS-1

☐ Check here if a list of additional Oil and Hazardous Materials subject to reporting, or any other documentation relating to this notification is attached.

D. PERSON REQUIRED TO NOTIFY:

1. Name of Organization: PINE GATE RENEWABLES

2. Contact First Name: JULIANNE 3. Last Name: WOOTEN

4. Street: 130 ROBERTS STREET 5. Title:

6. City/Town: ASHEVILLE 7. State: NC 8. ZIP Code: 288010000

9. Telephone: 828-820-2972 10. Ext.: 11. Email: jwooten@pgrenewables.com

☐ 12. Check here if attaching names and addresses of owners of properties affected by the Release, other than an owner who is submitting this Release Notification (required).

E. RELATIONSHIP OF PERSON TO RELEASE:

☑ 1. RP or PRP ☑ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☐ e. Other RP or PRP Specify:

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Otherwise Required to Notify Specify Relationship:

F. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

1. I, JULIANNE WOOTEN, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By : JULIANNE WOOTEN (Signature) 3. Title: _____

4. For: PINE GATE RENEWABLES (Name of person or entity recorded in Section D) 5. Date : 3/24/2023 (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. Email: _____

YOU ARE SUBJECT TO ANNUAL COMPLIANCE ASSURANCE FEES FOR EACH BILLABLE YEAR FOR TIER CLASSIFIED DISPOSAL SITES. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Received by DEP on 3/24/2023 11:40:05 AM

APPENDIX B

2021 and 2022 Sampling Letter Reports

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TO: Julianne Wooten (Pine Gate Renewables)

FROM: Stephen Vetere, PE, LSP, LEP (Mabbett & Associates)

DATE: January 6, 2022

SUBJECT: Soil, Cranberry, and Groundwater Sampling Results
Solar Carver 1 (Tremont Street) and Solar Carver 3 (Rochester Road)
Carver, Massachusetts

Mabbett & Associates, Inc. (Mabbett) completed a soil, cranberry, and groundwater sampling program on behalf of Pine Gate Renewables to evaluate potential impacts to environmental media from the use of wood poles treated with chromated copper arsenate (CCA) at two dual-use projects consisting of solar arrays installed into cranberry bogs in Carver, Massachusetts. This memorandum provides a description of multimedia sampling activities completed by Mabbett at Solar Carver 1 (SC1), on Tremont Street, and Solar Carver 3 (SC3), on Rochester Road, between October 28, 2021 and November 1, 2021.

EXECUTIVE SUMMARY

The study consisted of collecting soil and cranberry samples from several distances adjacent to ten installed poles. Soil and cranberry samples were collected around each pole at distances of 6 inches, 1 foot, 3 feet, and 6 feet from the pole. Soil and cranberry samples were also collected from bogs which had not been developed with poles. Soil and cranberry samples were analyzed for the presence of arsenic, chromium, and copper. Soil samples were also submitted for speciation analysis to determine whether chromium was present in its more toxic and more mobile hexavalent state, and for analysis of pH and oxidation-reduction potential (ORP). A subset of the soil samples were also submitted for arsenic speciation analysis.

Soil analytical results were compared to natural background concentrations of metals in soil within the Commonwealth of Massachusetts (MassDEP, 2002). All detected results were well below MassDEP-derived natural background concentrations and there was no significant difference between the concentrations detected in soil samples collected adjacent to the poles and the soil samples collected from bogs that are not developed with poles. Total arsenic was only detected in two out of 88 soil samples collected during the study. Trace levels of chromium were detected in all of the soil samples, including those collected from the bogs without poles, but no hexavalent chromium was detected in any of the soil samples. The concentrations of metals detected in the soil samples collected from the bogs are no different than those that would be expected in soils collected from anywhere in Massachusetts including residential yards, state parks, and agricultural lands.

Each soil sample was analyzed by the laboratory to determine its pH and ORP. The pH reported in the soil samples indicates they are slightly acidic. The ORP results show that the soil is oxygenated and not reduced. Both of these conditions would tend to limit the mobility of metals in the environment. The arsenic speciation data collected during this study provides further evidence to support this assumption, since in most samples over 90 percent of the arsenic detected was in the less toxic pentavalent oxidation state (As[V]).

Arsenic was not detected in any of the cranberry samples. Only one out of the original 44 samples of cranberries contained trace levels of chromium or copper; the other 43 cranberry samples did not contain detectable levels of chromium or copper. Cranberries from the location at which the single detection of chromium and copper was encountered were resampled and neither chromium nor copper were detected in the second sample.

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The study also included the advancement of six soil borings (three at each project) and installation of six shallow (15 feet below ground surface) monitoring wells. Groundwater samples were collected from each well for laboratory analysis of total arsenic, chromium, and copper. None of these metals were detected above Massachusetts drinking water standards. These wells are located outside of the bogs and impacts from CCA poles would not be anticipated, therefore these groundwater results are believed to represent natural background conditions.

Based on the interpretation of groundwater elevations within each study area, the direction of groundwater flow in the shallow overburden aquifer in SC1 is inferred to be toward the southwest and in SC3 shallow overburden groundwater is inferred to flow toward the southeast.

SAMPLING OBJECTIVES AND PROGRAM

The primary objective of the sampling program was to evaluate whether the metals contained in the CCA preservative that was applied to the poles have been released into the surrounding environment. Additional objectives of the program included evaluating the impact of CCA-treated poles on cranberries growing in the bogs, determining the direction of groundwater flow, and developing a baseline for metals concentrations in shallow soil and groundwater at each site. To achieve these objectives, the following field investigations were completed:

- Soil samples were collected from several locations adjacent to ten different poles (five poles at each project location). Three of the poles at each project were located in the bogs where pole installation commenced in June 2021, to represent environmental conditions after approximately four months of contact with the surrounding soils. The other two poles were located in bogs where pole installation occurred shortly thereafter, in an effort to determine if there was a significant difference in environmental conditions due to the shorter exposure time frame (see the attached figures).
- In each project area, four “control” samples were collected from two locations within bogs in which poles have not been installed to provide a comparison point with natural conditions in a similar environment that is unimpacted by the use of treated wood poles.
- Co-located cranberry samples were collected from each of the soil sampling locations described above.
- Three shallow (15-foot deep) monitoring wells were installed at each project location.
- Groundwater samples were collected from each of the six newly installed monitoring wells.
- The location and elevation of each monitoring well was surveyed and depth to groundwater measurements were obtained from each well.

The ensuing sections provide a discussion of the sampling procedures, laboratory analyses, sampling results, other environmental data collected during the program, and a proposed future testing program.

SOIL SAMPLING PROCEDURES

A series of eight soil samples was collected from the immediate vicinity of each of the ten poles included in the study. Soil samples were collected from distances of 6 inches, 1 foot, 3 feet, and 6 feet away from each pole. At each distance, a sample was collected from 0- to 3-inches below ground surface and a second sample was collected from 3- to 6-inches below ground surface.

Each soil sample submitted for laboratory analysis consisted of four increments of soil obtained at a specific distance from the pole. The four subsample increments were collected from four evenly-spaced locations along the circumference of a circle centered on the pole (0°, 90°, 180°, 270°) to create a sample that was representative of the entire volume of soil present at a specific distance from the pole. In the figure below, the locations of the

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four subsamples collected from 6 inches and 1 foot of the pole are shown (note that subsamples are collected from two depths at each location). The four subsamples collected from the same distance and depth were combined into a single soil sample to represent soils at that depth and distance from the pole. Although not shown on the figure, this same protocol was followed to collect samples from the 3-foot and 6-foot distance around each pole.

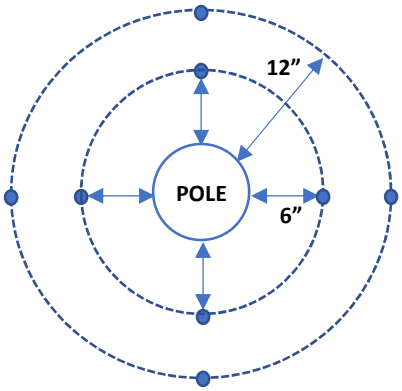


Figure 1. Typical soil sampling sketch.

In each of the four subsample locations, soil samples were collected using a hand coring tool or spaded shovel to achieve the desired sampling depths. Before collecting each surface subsample, the subsampling locations were identified by measuring the appropriate distance from the outside of the pole and flagging the location. The cranberry vines at the sampling location were cleared by hand to allow access to the upper layer of soil in the bog. Then, a soil subsample was collected from 0- to 3-inches below ground surface and placed into a stainless steel bowl. At that same location, the hole was advanced another 3 inches deeper and a soil subsample was collected between 3- and 6-inches below ground surface and placed into a different stainless steel bowl. This process was repeated at each of the four locations around the pole. After the four subsamples were collected from each depth into separate bowls, each sample was homogenized by mixing to combine the subsamples into a uniform sample. The 0-3 inch sample and the 3-6 inch sample were then transferred into separate glass jars and placed on ice.

As the homogenization process is likely to interfere with the oxidation state of arsenic and chromium due to the introduction of additional oxygen, additional sample volume was collected from the above-specified depth intervals at the four subsample locations and placed directly into additional glass jars for metals speciation laboratory analysis.

Aerial photographs of the SC1 and SC3 project areas are provided as attachments to this memo. Approximate soil sampling locations are provided on these photographs (the actual sampling locations were staked in the field). Poles were selected for soil sampling based on the length of time they had been in contact with soil in the bogs. At SC1, pole installation began in the northern array, in the easternmost bog (labeled SC1-N6 for the purposes of this study), during the month of June 2021. At SC3, pole installation began in the southern array, in the southernmost bog (labeled SC3-S2 for the purposes of this study), during the month of June 2021. Since these poles have been in contact with the surrounding environment for the longest period of time, most of the poles selected for sampling (3 out of 5 in each project) were in these bogs. Poles from two other bogs in each project were also selected for sampling to evaluate environmental impacts in bogs in which poles have not been installed for as long a duration.

Each soil sample collected proximate to the CCA-treated poles was placed into laboratory-supplied glassware, stored in a cooler on ice, and submitted under appropriate chain-of-custody procedures to Pace Analytical Laboratories of East Longmeadow, Massachusetts (Pace) for laboratory analysis of total arsenic, total chromium, and total copper by EPA Method 6010 and hexavalent chromium by EPA Method 3500 Cr B. The soil samples collected 6 inches from the poles were also submitted to Pace for arsenic speciation; Pace subcontracted this analysis to Brooks Applied Labs of Bothell, Washington (BAL). BAL performed arsenic speciation quantitation using inductively coupled plasma collision reaction cell mass spectrometry. A summary of soil analytical results is provided in the attached Table 1 (SC1) and Table 2 (SC3).

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CRANBERRY SAMPLING PROCEDURES

To evaluate potential impacts to cranberries growing in the bogs from CCA-treated poles, co-located cranberry samples were collected from each of the soil sampling locations described in the preceding section. The cranberries for each sample were hand collected, using powder free nitrile gloves, and placed into clear plastic polyethylene bags.

Each cranberry sample collected proximate to the CCA-treated poles was stored in a cooler on ice and submitted under appropriate chain-of-custody procedures to Eurofins Environment Testing New England of North Kingstown, Rhode Island (Eurofins) for laboratory analysis of total arsenic, total chromium, and total copper by EPA Method 6010D. A summary of cranberry sampling results is provided in the attached Table 3.

GROUNDWATER MONITORING WELL INSTALLATION

In an effort to determine the direction of groundwater flow and develop baseline concentrations for metals in shallow groundwater, three groundwater monitoring wells were installed at each project area on October 29, 2021. Prior to mobilization, the locations of the groundwater monitoring wells were selected, as shown on the attached figures, to provide spatial distribution across the respective project areas, as well as to provide monitoring locations both upgradient and downgradient of the bogs where CCA-treated poles had been installed.

Each of the six groundwater monitoring wells were installed to 15 feet below ground surface utilizing a direct push technology (DPT) GeoProbe™ drill rig operated by Crawford Drilling Services of Westminster, Massachusetts under the oversight of a Mabbett geologist. Soil samples were collected continuously from each soil boring using macro-core sampling methodologies and the wells were finished with flush-mounted roadboxes. Each monitoring well was installed with a 3-foot-long, 2-inch diameter polyvinyl chloride (PVC) riser and a 12-foot, 2-inch diameter 0.010-inch slotted PVC screen intersecting the water table. Each monitoring well was developed after installation using a down-well submersible pump until a minimum of three well volumes was removed to increase the hydraulic connection between the monitoring well and the surrounding aquifer.

A Mabbett geologist logged soil lithology from the soil borings performed to facilitate the installation of each monitoring well, and collected a soil sample from either the 5- to 10-foot or 10- to 15-foot depth interval of each soil boring for laboratory analysis. These deeper depth interval soil samples were collected in an effort to evaluate soil conditions as depths underlying the surficial soil sampling efforts presented above.

Each soil sample collected during the monitoring well installation was placed into laboratory-supplied glassware, stored in a cooler on ice, and submitted under appropriate chain-of-custody procedures to Pace for laboratory analysis of total arsenic, total chromium, and total copper by EPA Method 6010 and hexavalent chromium by EPA Method 3500 Cr B.

GROUNDWATER SAMPLING PROCEDURES

Prior to initiating groundwater sample collection, the depth to groundwater in each monitoring well was measured utilizing an electronic water level probe capable of measuring the depth to water to the nearest hundredth of a foot. Groundwater sampling was performed on October 30, 2021 utilizing a peristaltic pump, disposable tubing, and US EPA approved low flow/low stress sampling methodologies. Prior to sample collection, purged groundwater was monitored using a Yellow Springs Instrument (YSI™) handheld multi-parameter sonde equipped with a YSI™ sensor and flow-through cell to measure a series of field indicator parameters including: pH, conductivity, temperature, ORP, dissolved oxygen (DO), and turbidity. Readings for these parameters, along with depth to water, were taken every 3 to 5 minutes during purging. Following an initial purge period, measurements for these field parameters were collected and recorded in a field log book. Once groundwater parameters stabilized for three consecutive readings in accordance with the US EPA's 2017 Region 1 Low Flow/Low Stress

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Purging and Sampling Procedure, water samples were collected directly from the down-well tubing. The table below provides the field parameter measurements recorded immediately prior to collecting the groundwater samples from each well.

Well	DTW	Temp.	DO	ORP	pH	Conductivity	Turbidity
	ft bmp	°C	mg/L	mV	units	µS/cm^2	NTU
SC1-MW01	3.10	17.1	0.61	-202.6	5.81	118.6	421
SC1-MW02	2.40	17.6	0.24	-241.3	5.73	443.1	429
SC1-MW03	3.81	16.8	3.86	47.7	5.20	61.6	562
SC3-MW01	2.31	15.4	0.71	149.1	4.24	100.2	194
SC3-MW02	3.54	15.3	3.28	-48.4	5.22	117.4	671
SC3-MW03	7.07	15.9	7.96	59.7	5.51	104.2	249

Notes:
DTW = depth to water
ft bmp = feet below measuring point (measuring point is PVC well casing)
mV = millivolts
NTU = nephelometric turbidity units

Groundwater samples were placed into laboratory-supplied glassware, stored in a cooler on ice, and submitted under appropriate chain-of-custody procedures to Eurofins for analysis of total arsenic, chromium, and copper by EPA Method 6010.

SUMMARY OF ANALYTICAL RESULTS

In the attached Tables 1 and 2, the soil analytical results from SC1 and SC3 are compared to the background concentrations in "natural" soil published by MassDEP in Table 1 of the 2002 *Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil*. These values are considered representative of natural background levels of metals present in soils throughout Massachusetts. As shown on these tables, there were no metals detected in soil samples above background levels. Of note, arsenic was only detected above laboratory detection limits in two of the 80 samples collected adjacent to the poles during the study. The concentrations of metals detected in soil samples collected near the poles were similar to those collected in bogs that are not developed with poles.

Metals speciation analysis of soil samples was performed to evaluate the toxicity and mobility of the arsenic and chromium present in the environment. Arsenic speciation analysis provided a more sensitive method with lower detection limits, indicating that arsenic concentrations are well below those that are typically detectable using Method 6010 and that most of the arsenic present is in the less toxic pentavalent form, As(V). The more toxic and mobile form of chromium, hexavalent chromium, was not detected in any of the soil samples collected adjacent to the poles, indicating that the dominant species of chromium is the trivalent state, Cr(III).

The attached Table 3 provides the analytical results for cranberry samples collected from SC1 and SC3. As shown on the table, there was no arsenic detected above laboratory detection limits in any of the cranberry samples. There was only one sample of cranberries (out of 44 samples) that contained trace concentrations of chromium or copper. This location was resampled and the second sample of cranberries did not contain detectable concentrations of chromium or copper.

The attached Table 4 provides the analytical results for groundwater samples collected from the six newly installed monitoring wells. The analytical results are compared against the Massachusetts Maximum Contaminant Levels (MMCLs), which are the Commonwealth's drinking water standards. There were no metals detected above

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MMCLs in any of the samples. The groundwater results obtained in this round of sampling represent natural background conditions since potential impacts to groundwater from the poles would not be expected to travel the distance required to reach these shallow groundwater wells in the amount of time the poles have been installed.

The location and elevation of the groundwater monitoring wells at each project site were surveyed by Farland Corporation of Dartmouth, Massachusetts on November 10, 2021. Based on the elevation of the groundwater monitoring wells and the measured depth to water at each well, overburden groundwater flow at SC-1 is inferred to be toward the southwest, and overburden groundwater flow at SC-3 is inferred to be toward the southeast. This interpretation corroborates the direction of groundwater flow reported by the United States Geological Survey (USGS) in published reports.

RECOMMENDED MONITORING PROGRAM

The dataset presented in this memorandum provides evidence that the installation of CCA-treated poles into the cranberry bogs at SC1 and SC3 has not resulted in the release of metals to the environment at concentrations which present a risk to human health or the environment. There were no metals detected in soil above natural background conditions, even in close proximity to the poles. However, these results are a snapshot in time and seasonal impacts or flooding for harvest may subject the poles to different conditions. Therefore, the following monitoring program could be implemented to verify that metals concentrations in the bogs remain at background levels and confirm that groundwater is not adversely impacted by the poles:

- Repeat the soil sampling program that was implemented for this study annually during the harvest season. The soil sampling could occur around a subset of the poles included in this study or at poles in different bog locations. The sampling could be performed after a flood to determine the extent to which metals concentrations change due to the flooding and harvesting process.
- Installation and sampling of monitoring wells that are screened to the same depth as the bottom of the poles. These wells, in combination with the shallow wells installed during this study, would provide an early warning sign for any potential metals that might be released from the underground portions of the poles into the groundwater. Samples could be collected from these wells semi-annually in the spring and fall to monitor for any changes in metals concentrations in groundwater.

Taken together, these soil and groundwater monitoring strategies would demonstrate that environmental conditions in the bogs are not being adversely impacted by the presence of the CCA-treated poles, cranberries are not being impacted by the poles, and verify that there are no metals leaving the bogs and traveling off-site via groundwater flow.

Respectfully submitted,

MABBETT & ASSOCIATES, INC.

Prepared by:

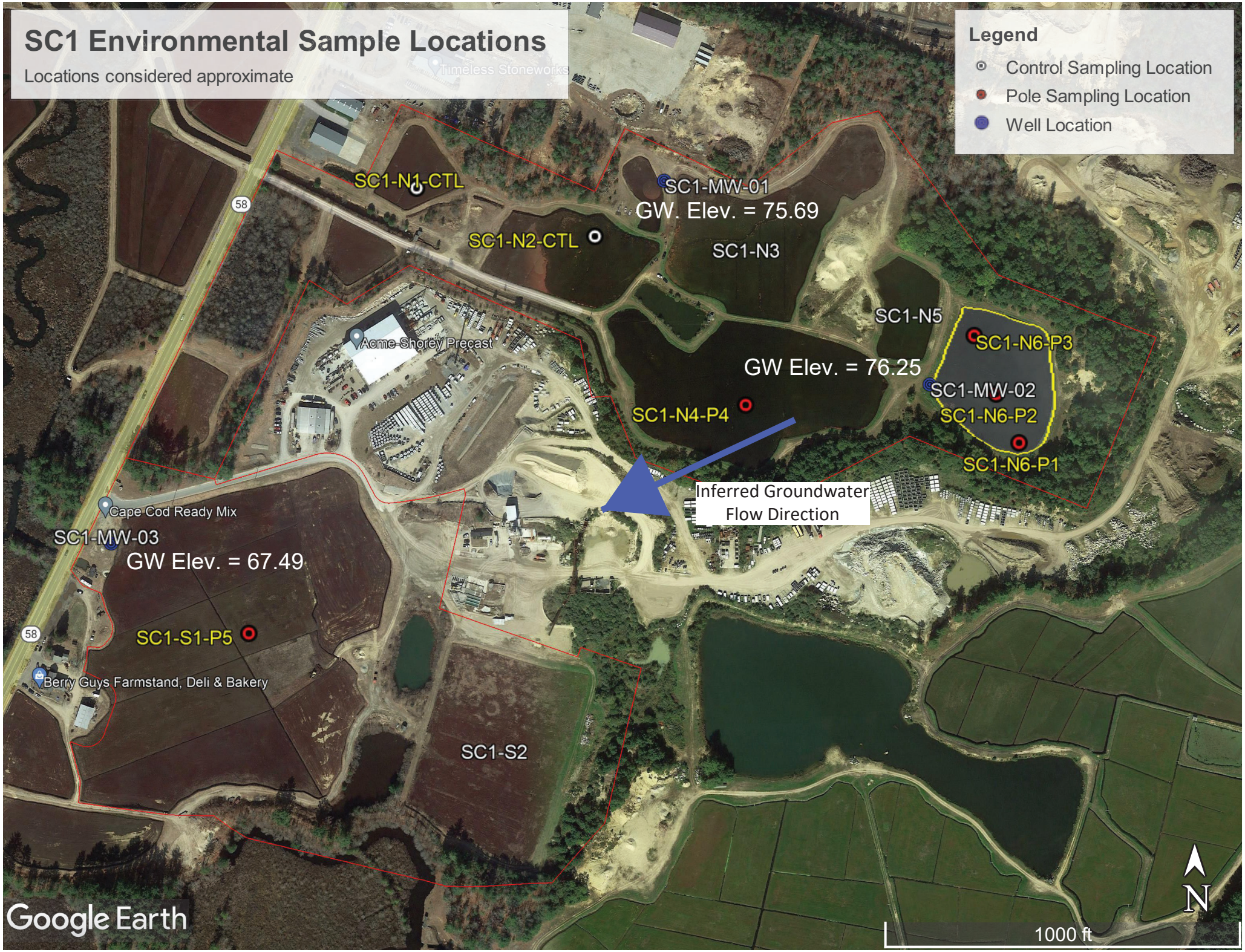
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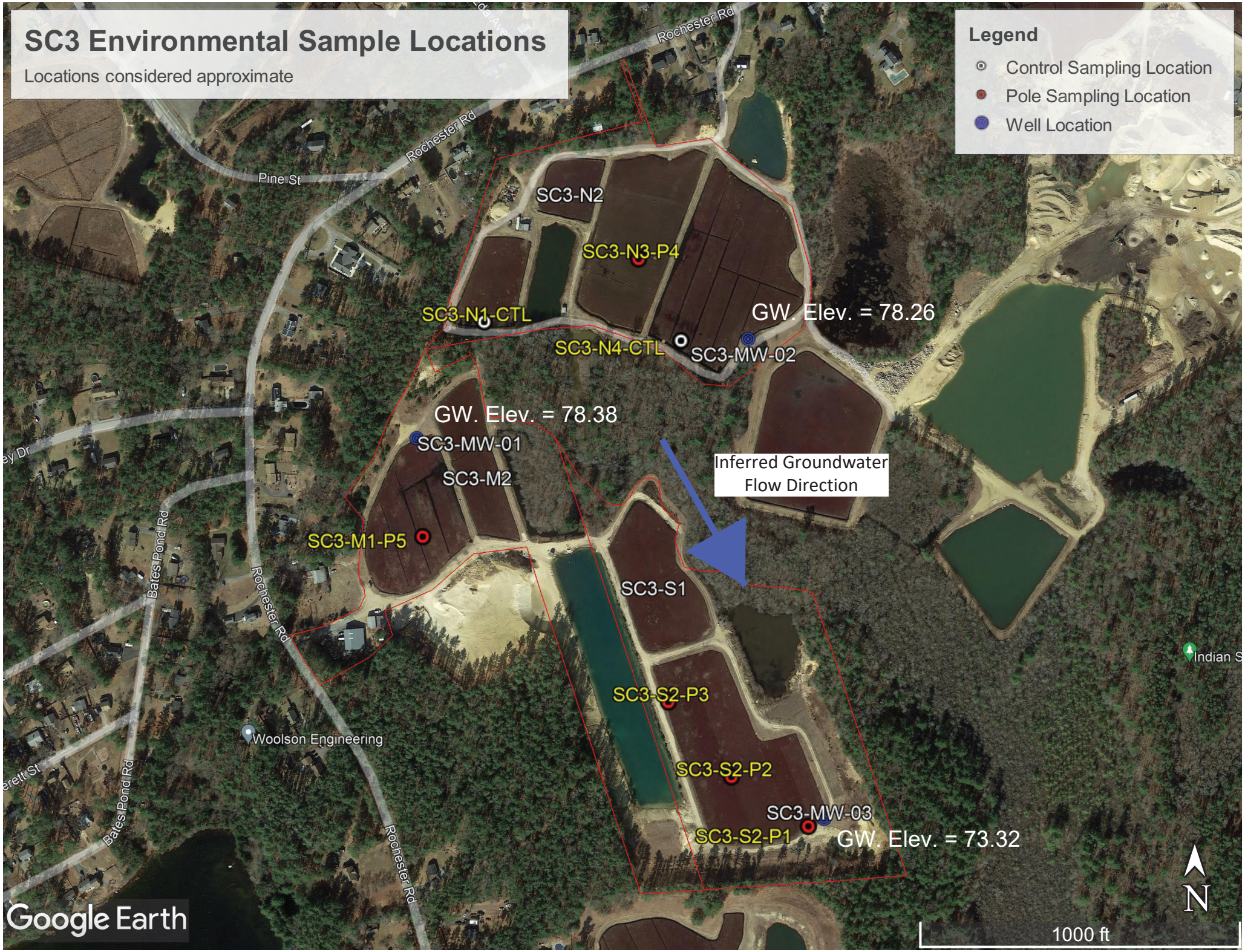
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ATTACHMENT A

Figures


SC1 Environmental Sample Locations
Locations considered approximate
Legend
Control Sampling Location
Pole Sampling Location
Well Location
SC1-N1-CTL
SC1-MW-01
GW. Elev. = 75.69
SC1-N2-CTL
SC1-N3
SC1-N5
SC1-N6-P3
Acme Shorey Precast
GW Elev. = 76.25
SC1-MW-02
SC1-N4-P4
SC1-N6-P2
SC1-N6-P1
Inferred Groundwater Flow Direction
Cape Cod Ready Mix
SC1-MW-03
GW Elev. = 67.49
SC1-S1-P5
Berry Guys Farmstand, Deli & Bakery
SC1-S2
58
Google Earth
N
1000 ft


SC3 Environmental Sample Locations
Locations considered approximate
Legend
Control Sampling Location
Pole Sampling Location
Well Location
Rochester Rd
Pine St
SC3-N2
SC3-N3-P4
SC3-N1-CTL
SC3-N4-CTL
SC3-MW-02
GW. Elev. = 78.26
GW. Elev. = 78.38
SC3-MW-01
SC3-M2
SC3-M1-P5
Inferred Groundwater Flow Direction
SC3-S1
SC3-S2-P3
SC3-S2-P2
SC3-MW-03
SC3-S2-P1
GW. Elev. = 73.32
Bates Pond Rd
Woolson Engineering
Google Earth
N
1000 ft

ATTACHMENT B

Analytical Summary Tables

Table 1
Summary of Soil Analytical Results - Solar Carver 1
Tremont Street, Carver, Massachusetts

		Analyte:	Arsenic (mg/kg)	As3+ (mg/kg)	As5+ (mg/kg)	Chromium (mg/kg)	Cr3+ (mg/kg)	Cr6+ (mg/kg)	Copper (mg/kg	ORP (mV)	pH	Project	Bog	Pole	Distance (in)	Depth (in)
MassDEP Background Levels in Natural Soil:			20	20	20	30	30	30	40	N/A	N/A					
SAMPLE ID	SAMPLE DATE	MEDIUM	Surficial Soil Sampling Proximate to CCA-treated Poles													
SC1-N6-SO-P100-0003	28-Oct-21	Soil	10	0.028	1.17	13	13	<1.2	14	110	4.4	SC1	SC1-N6	P1	6	0-3
SC1-N6-SO-P100-0306	28-Oct-21	Soil	<3.9	0.011	0.517	4.2	4.2	<0.90	4.8	120	5.1	SC1	SC1-N6	P1	6	3-6
SC1-N6-SO-P101-0003	28-Oct-21	Soil	<4.8	--	--	5.1	5.1	<1.1	8.8	150	4.5	SC1	SC1-N6	P1	12	0-3
SC1-N6-SO-P101-0306	28-Oct-21	Soil	<4.2	--	--	2.8	2.8	<1.0	3.2	140	5.1	SC1	SC1-N6	P1	12	3-6
SC1-N6-SO-P103-0003	28-Oct-21	Soil	<5.3	--	--	3.8	3.8	<1.3	6.1	160	4.7	SC1	SC1-N6	P1	36	0-3
SC1-N6-SO-P103-0306	28-Oct-21	Soil	<3.8	--	--	2.8	2.8	<0.93	2.6	160	4.8	SC1	SC1-N6	P1	36	3-6
SC1-N6-SO-P106-0003	28-Oct-21	Soil	<4.6	--	--	2.9	2.9	<2.2	6.9	180	4.8	SC1	SC1-N6	P1	72	0-3
SC1-N6-SO-P106-0306	28-Oct-21	Soil	<3.7	--	--	3.0	3.0	<0.91	5.0	160	5.3	SC1	SC1-N6	P1	72	3-6
SC1-N6-SO-P200-0003	28-Oct-21	Soil	8.8	0.103	1.57	8.1	8.1	<3.4	38	190	4.7	SC1	SC1-N6	P2	6	0-3
SC1-N6-SO-P200-0306	28-Oct-21	Soil	<4.7	0.203	1.62	3.1	3.1	<1.1	5.0	190	5.1	SC1	SC1-N6	P2	6	3-6
SC1-N6-SO-P201-0003	28-Oct-21	Soil	<5.4	--	--	3.0	3.0	<2.6	9.2	200	4.8	SC1	SC1-N6	P2	12	0-3
SC1-N6-SO-P201-0306	28-Oct-21	Soil	<4.7	--	--	4.3	4.3	<2.3	5.3	190	4.9	SC1	SC1-N6	P2	12	3-6
SC1-N6-SO-P203-0003	28-Oct-21	Soil	<8.5	--	--	4.2	4.2	<4.0	11	200	4.7	SC1	SC1-N6	P2	36	0-3
SC1-N6-SO-P203-0306	28-Oct-21	Soil	<7.2	--	--	2.4	2.4	<3.4	9.9	200	5.2	SC1	SC1-N6	P2	36	3-6
SC1-N6-SO-P206-0003	28-Oct-21	Soil	<6.4	--	--	2.5	2.5	<3.1	7.4	210	4.6	SC1	SC1-N6	P2	72	0-3
SC1-N6-SO-P206-0306	28-Oct-21	Soil	<4.9	--	--	2.2	2.2	<1.2	7.7	220	4.8	SC1	SC1-N6	P2	72	3-6
SC1-N6-SO-P300-0003	28-Oct-21	Soil	<5.9	0.077	1.80	3.7	3.7	<1.4	8.0	210	4.8	SC1	SC1-N6	P3	6	0-3
SC1-N6-SO-P300-0306	28-Oct-21	Soil	<5.4	0.044	0.588	3.7	3.7	<1.3	6.9	210	4.9	SC1	SC1-N6	P3	6	3-6
SC1-N6-SO-P301-0003	28-Oct-21	Soil	<6.2	--	--	2.6	2.6	<3.1	8.0	220	4.4	SC1	SC1-N6	P3	12	0-3
SC1-N6-SO-P301-0306	28-Oct-21	Soil	<5.2	--	--	2.4	2.4	<2.5	7.4	210	4.9	SC1	SC1-N6	P3	12	3-6
SC1-N6-SO-P303-0003	28-Oct-21	Soil	<6.4	--	--	2.8	2.8	<3.1	9.0	220	4.7	SC1	SC1-N6	P3	36	0-3
SC1-N6-SO-P303-0306	28-Oct-21	Soil	<4.9	--	--	2.4	2.4	<1.2	5.2	210	4.9	SC1	SC1-N6	P3	36	3-6
SC1-N6-SO-P306-0003	28-Oct-21	Soil	<9.2	--	--	3.8	3.8	<4.7	15	230	4.4	SC1	SC1-N6	P3	72	0-3
SC1-N6-SO-P306-0306	28-Oct-21	Soil	<4.4	--	--	1.8	1.8	<1.0	4.6	220	4.8	SC1	SC1-N6	P3	72	3-6
SC1-N4-SO-P400-0003	28-Oct-21	Soil	<6.2	0.381	3.66	5.8	5.8	<3.0	26	220	5.0	SC1	SC1-N4	P4	6	0-3
SC1-N4-SO-P400-0306	28-Oct-21	Soil	<9.5	0.008	0.540	4.9	4.9	<2.3	8.2	230	4.6	SC1	SC1-N4	P4	6	3-6
SC1-N4-SO-P401-0003	28-Oct-21	Soil	<5.8	--	--	3.4	3.4	<2.7	9.3	230	4.7	SC1	SC1-N4	P4	12	0-3
SC1-N4-SO-P401-0306	28-Oct-21	Soil	<4.9	--	--	3.0	3.0	<1.2	6.0	220	4.6	SC1	SC1-N4	P4	12	3-6
SC1-N4-SO-P403-0003	28-Oct-21	Soil	<7.5	--	--	5.4	5.4	<3.7	8.2	230	4.5	SC1	SC1-N4	P4	36	0-3
SC1-N4-SO-P403-0306	28-Oct-21	Soil	<5.0	--	--	2.2	2.2	<1.2	3.8	230	4.8	SC1	SC1-N4	P4	36	3-6
SC1-N4-SO-P406-0003	28-Oct-21	Soil	<11	--	--	3.8	3.8	<2.6	8.1	240	4.7	SC1	SC1-N4	P4	72	0-3
SC1-N4-SO-P406-0306	28-Oct-21	Soil	<8.0	--	--	3.8	3.8	<1.9	6.3	230	4.7	SC1	SC1-N4	P4	72	3-6
SC1-S1-SO-P500-0003	28-Oct-21	Soil	<6.4	0.846	3.33	4.1	4.1	<3.1	9.9	150	4.5	SC1	SC1-S1	P5	6	0-3
SC1-S1-SO-P500-0306	28-Oct-21	Soil	<6.0	0.032	0.757	3.8	3.8	<2.9	14	210	8.5	SC1	SC1-S1	P5	6	3-6
SC1-S1-SO-P501-0003	28-Oct-21	Soil	<6.1	--	--	4.2	4.2	<3.0	11	220	4.4	SC1	SC1-S1	P5	12	0-3
SC1-S1-SO-P501-0306	28-Oct-21	Soil	<5.3	--	--	3.0	3.0	<2.6	7.9	220	4.6	SC1	SC1-S1	P5	12	3-6
SC1-S1-SO-P503-0003	28-Oct-21	Soil	<5.5	--	--	2.7	2.7	<2.6	6.6	210	4.6	SC1	SC1-S1	P5	36	0-3
SC1-S1-SO-P503-0306	28-Oct-21	Soil	<5.3	--	--	3.8	3.8	<2.6	7.6	210	4.6	SC1	SC1-S1	P5	36	3-6
SC1-S1-SO-P506-0003	28-Oct-21	Soil	<6.3	--	--	3.8	3.8	<3.0	8.2	200	4.5	SC1	SC1-S1	P5	72	0-3
SC1-S1-SO-P506-0306	28-Oct-21	Soil	<5.4	--	--	3.4	3.4	<2.6	6.6	200	4.8	SC1	SC1-S1	P5	72	3-6
Control Samples (collected from bogs not developed with poles)																
SC1-N1-SO-CTLU-0003	29-Oct-21	Soil	<4.5	0.041	0.277	2.6	2.6	<2.2	4.0	210	5.1	SC1	SC1-N1	None	~	0-3
SC1-N1-SO-CTLU-0306	29-Oct-21	Soil	<4.5	0.045	0.382	3.3	3.3	<5.3	3.4	210	5.5	SC1	SC1-N1	None	~	3-6
SC1-N2-SO-CTLU-0003	29-Oct-21	Soil	<5.6	0.007	0.263	4.1	4.1	<2.7	4.5	230	4.4	SC1	SC1-N2	None	~	0-3
SC1-N2-SO-CTLU-0306	29-Oct-21	Soil	<4.4	0.013	0.690	2.7	2.7	<2.0	2.3	220	4.5	SC1	SC1-N2	None	~	3-6
Monitoring Well Installation Soil Samples																
SC1-SB01-1015	29-Oct-21	Soil	<4.0	--	--	2.0	2.0	<0.98	<0.80	190	5.5	SC1	MW-01	None	~	120-180
SC1-SB02-1015	29-Oct-21	Soil	<3.7	--	--	3.0	3.0	<0.89	2.0	160	5.6	SC1	MW-02	None	~	120-180
SC1-SB03-1015	29-Oct-21	Soil	<3.8	--	--	4.3	4.3	<0.91	2.9	180	7.0	SC1	MW-03	None	~	120-180

Table 2
Summary of Soil Analytical Results - Soil Carver 3
Rochester Road, Carver, Massachusetts

		Analyte:	Arsenic (mg/kg)	As3+ (mg/kg)	As5+ (mg/kg)	Chromium (mg/kg)	Cr3+ (mg/kg)	Cr6+ (mg/kg)	Copper (mg/kg	ORP (mV)	pH	Project	Bog	Pole	Distance (in)	Depth (in)
MassDEP Background Levels in Natural Soil:			20	20	20	30	30	30	40	N/A	N/A					
SAMPLE ID	SAMPLE DATE	MEDIUM	Surficial Soil Sampling Proximate to CCA-treated Poles													
SC3-S2-SO-P100-0003	29-Oct-21	Soil	<3.8	<0.001	0.297	3.4	3.4	<0.88	1.8	240	4.4	SC3	SC3-S2	P1	6	0-3
SC3-S2-SO-P100-0306	29-Oct-21	Soil	<3.8	<0.001	0.306	3.6	3.6	<0.90	2.2	260	4.7	SC3	SC3-S2	P1	6	3-6
SC3-S2-SO-P101-0003	29-Oct-21	Soil	<3.8	--	--	3.6	3.6	<0.91	2.0	280	4.7	SC3	SC3-S2	P1	12	0-3
SC3-S2-SO-P101-0306	29-Oct-21	Soil	<3.7	--	--	3.3	3.3	<0.89	2.1	280	4.6	SC3	SC3-S2	P1	12	3-6
SC3-S2-SO-P103-0003	29-Oct-21	Soil	<3.8	--	--	3.5	3.5	<0.91	2.0	290	4.7	SC3	SC3-S2	P1	36	0-3
SC3-S2-SO-P103-0306	29-Oct-21	Soil	<3.8	--	--	3.8	3.8	<0.90	2.1	270	4.7	SC3	SC3-S2	P1	36	3-6
SC3-S2-SO-P106-0003	29-Oct-21	Soil	<3.7	--	--	4.3	4.3	<0.90	3.4	290	4.5	SC3	SC3-S2	P1	72	0-3
SC3-S2-SO-P106-0306	29-Oct-21	Soil	<3.7	--	--	3.4	3.4	<0.89	2.0	300	4.4	SC3	SC3-S2	P1	72	3-6
SC3-S2-SO-P200-0003	29-Oct-21	Soil	<3.8	<0.001	0.325	4.7	4.7	<0.92	2.5	290	4.3	SC3	SC3-S2	P2	6	0-3
SC3-S2-SO-P200-0306	29-Oct-21	Soil	<3.8	<0.001	0.389	4.8	4.8	<0.90	2.6	330	4.3	SC3	SC3-S2	P2	6	3-6
SC3-S2-SO-P201-0003	29-Oct-21	Soil	<3.9	--	--	4.8	4.8	<0.94	2.5	280	4.4	SC3	SC3-S2	P2	12	0-3
SC3-S2-SO-P201-0306	29-Oct-21	Soil	<3.9	--	--	4.9	4.9	<0.92	2.4	300	4.2	SC3	SC3-S2	P2	12	3-6
SC3-S2-SO-P203-0003	29-Oct-21	Soil	<3.9	--	--	4.7	4.7	<0.92	2.4	310	4.4	SC3	SC3-S2	P2	36	0-3
SC3-S2-SO-P203-0306	29-Oct-21	Soil	<3.7	--	--	4.7	4.7	<0.91	2.5	310	4.4	SC3	SC3-S2	P2	36	3-6
SC3-S2-SO-P206-0003	29-Oct-21	Soil	<4.1	--	--	4.7	4.7	<0.98	2.3	320	4.4	SC3	SC3-S2	P2	72	0-3
SC3-S2-SO-P206-0306	29-Oct-21	Soil	<3.7	--	--	4.6	4.6	<0.93	2.4	310	4.3	SC3	SC3-S2	P2	72	3-6
SC3-S2-SO-P300-0003	29-Oct-21	Soil	<3.8	<0.001	0.242	3.0	3.0	<0.91	1.6	310	4.5	SC3	SC3-S2	P3	6	0-3
SC3-S2-SO-P300-0306	29-Oct-21	Soil	<3.7	<0.001	0.258	2.9	2.9	<0.89	1.6	320	4.4	SC3	SC3-S2	P3	6	3-6
SC3-S2-SO-P301-0003	29-Oct-21	Soil	<3.7	--	--	2.9	2.9	<0.89	1.5	300	4.3	SC3	SC3-S2	P3	12	0-3
SC3-S2-SO-P301-0306	29-Oct-21	Soil	<3.8	--	--	3.0	3.0	<0.90	1.8	310	4.5	SC3	SC3-S2	P3	12	3-6
SC3-S2-SO-P303-0003	29-Oct-21	Soil	<3.8	--	--	3.0	3.0	<0.88	1.7	190	4.3	SC3	SC3-S2	P3	36	0-3
SC3-S2-SO-P303-0306	29-Oct-21	Soil	<3.6	--	--	2.7	2.7	<0.91	1.7	200	4.5	SC3	SC3-S2	P3	36	3-6
SC3-S2-SO-P306-0003	29-Oct-21	Soil	<3.8	--	--	3.0	3.0	<1.8	1.7	210	4.4	SC3	SC3-S2	P3	72	0-3
SC3-S2-SO-P306-0306	29-Oct-21	Soil	<3.6	--	--	3.0	3.0	<0.89	1.6	210	4.1	SC3	SC3-S2	P3	72	3-6
SC3-N3-SO-P400-0003	29-Oct-21	Soil	<4.4	0.009	0.304	3.3	3.3	<2.2	15	200	4.3	SC3	SC3-N3	P4	6	0-3
SC3-N3-SO-P400-0306	29-Oct-21	Soil	<4.0	0.023	0.435	2.7	2.7	<0.96	6.0	220	4.6	SC3	SC3-N3	P4	6	3-6
SC3-N3-SO-P401-0003	29-Oct-21	Soil	<4.0	--	--	3.4	3.4	<0.98	6.9	220	4.4	SC3	SC3-N3	P4	12	0-3
SC3-N3-SO-P401-0306	29-Oct-21	Soil	<3.9	--	--	2.4	2.4	<0.97	5.4	220	4.5	SC3	SC3-N3	P4	12	3-6
SC3-N3-SO-P403-0003	29-Oct-21	Soil	<4.0	--	--	2.6	2.6	<0.95	5.9	270	4.5	SC3	SC3-N3	P4	36	0-3
SC3-N3-SO-P403-0306	29-Oct-21	Soil	<4.0	--	--	6.7	6.7	<0.98	6.6	220	4.7	SC3	SC3-N3	P4	36	3-6
SC3-N3-SO-P406-0003	29-Oct-21	Soil	<4.1	--	--	2.5	2.5	<0.98	12	190	5.6	SC3	SC3-N3	P4	72	0-3
SC3-N3-SO-P406-0306	29-Oct-21	Soil	<4.0	--	--	3.0	3.0	<0.99	8.8	230	5.3	SC3	SC3-N3	P4	72	3-6
SC3-M1-SO-P500-0003	29-Oct-21	Soil	<4.6	0.056	0.791	3.4	3.4	<2.3	2.9	220	4.5	SC3	SC3-M1	P5	6	0-3
SC3-M1-SO-P500-0306	29-Oct-21	Soil	<5.5	0.190	0.659	3.6	3.6	<2.7	4.0	210	5.5	SC3	SC3-M1	P5	6	3-6
SC3-M1-SO-P501-0003	29-Oct-21	Soil	<4.5	--	--	2.4	2.4	<2.3	1.9	220	4.6	SC3	SC3-M1	P5	12	0-3
SC3-M1-SO-P501-0306	29-Oct-21	Soil	<4.5	--	--	2.7	2.7	<2.2	2.0	210	4.5	SC3	SC3-M1	P5	12	3-6
SC3-M1-SO-P503-0003	29-Oct-21	Soil	<4.4	--	--	3.0	3.0	<2.1	2.5	210	4.4	SC3	SC3-M1	P5	36	0-3
SC3-M1-SO-P503-0306	29-Oct-21	Soil	<4.5	--	--	2.6	2.6	<2.2	2.0	230	5.0	SC3	SC3-M1	P5	36	3-6
SC3-M1-SO-P506-0003	29-Oct-21	Soil	<4.7	--	--	3.3	3.3	<2.3	2.8	220	4.5	SC3	SC3-M1	P5	72	0-3
SC3-M1-SO-P506-0306	29-Oct-21	Soil	<4.9	--	--	3.8	3.8	<2.3	4.2	220	5.2	SC3	SC3-M1	P5	72	3-6
Control Samples (collected from bogs not developed with poles)																
SC3-N1-SO-CTLP-0003	29-Oct-21	Soil	<3.8	0.060	0.511	2.8	2.8	<0.91	3.8	230	4.8	SC3	SC3-N1	None	~	0-3
SC3-N1-SO-CTLP-0306	29-Oct-21	Soil	<4.0	0.040	0.612	2.7	2.7	<0.95	2.8	220	4.6	SC3	SC3-N1	None	~	3-6
SC3-N4-SO-CTLP-0003	29-Oct-21	Soil	<4.3	0.225	2.50	2.7	2.7	<2.1	12	230	4.6	SC3	SC3-N4	None	~	0-3
SC3-N4-SO-CTLP-0306	29-Oct-21	Soil	<4.0	0.080	0.900	4.5	4.5	<0.99	9.7	200	4.8	SC3	SC3-N4	None	~	3-6
Monitoring Well Installation Soil Samples																
SC3-SB01-0510	29-Oct-21	Soil	<3.8	--	--	2.1	2.1	<0.19	1.2	140	5.5	SC3	MW-01	None	~	60-120
SC3-SB02-1015	29-Oct-21	Soil	<4.0	--	--	2.2	2.2	<0.19	1.3	160	5.9	SC3	MW-02	None	~	120-180
SC3-SB03-1015	29-Oct-21	Soil	<4.3	--	--	6.1	6.1	<0.20	3.7	160	4.9	SC3	MW-03	None	~	120-180

Table 3
Summary of Analytical Data for Cranberry Samples
Solar Carver 1 (Tremont) and Solar Carver 3 (Rochester)
Carver, Massachusetts

SAMPLE ID	SAMPLE DATE	MEDIUM	Arsenic (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Project	Bog	Pole	Distance
SC1-N6-FR-P100-102821	28-Oct-21	Fruit	<26.1	<8.70	<17.4	SC1	SC1-N6	P1	6
SC1-N6-FR-P101-102821	28-Oct-21	Fruit	<19.0	<6.32	<12.6	SC1	SC1-N6	P1	12
SC1-N6-FR-P103-102821	28-Oct-21	Fruit	<19.3	**21.3/**<10.6*	**24.4/**<10.6*	SC1	SC1-N6	P1	36
SC1-N6-FR-P106-102821	28-Oct-21	Fruit	<18.4	<6.12	<12.2	SC1	SC1-N6	P1	72
SC1-N6-FR-P200-102821	28-Oct-21	Fruit	<14.2	<4.73	<9.46	SC1	SC1-N6	P2	6
SC1-N6-FR-P201-102821	28-Oct-21	Fruit	<25.1	<8.36	<8.36	SC1	SC1-N6	P2	12
SC1-N6-FR-P203-102821	28-Oct-21	Fruit	<17.6	<5.86	<11.7	SC1	SC1-N6	P2	36
SC1-N6-FR-P206-102821	28-Oct-21	Fruit	<17.4	<5.81	<11.6	SC1	SC1-N6	P2	72
SC1-N6-FR-P300-102821	28-Oct-21	Fruit	<21.4	<7.14	<14.3	SC1	SC1-N6	P3	6
SC1-N6-FR-P301-102821	28-Oct-21	Fruit	<19.7	<6.58	<13.2	SC1	SC1-N6	P3	12
SC1-N6-FR-P303-102821	28-Oct-21	Fruit	<24.8	<16.5	<16.5	SC1	SC1-N6	P3	36
SC1-N6-FR-P306-102821	28-Oct-21	Fruit	<24.5	<16.3	<16.3	SC1	SC1-N6	P3	72
SC1-N4-FR-P400-102821	28-Oct-21	Fruit	<22.1	<14.7	<14.7	SC1	SC1-N4	P4	6
SC1-N4-FR-P401-102821	28-Oct-21	Fruit	<17.2	<11.5	<11.5	SC1	SC1-N4	P4	12
SC1-N4-FR-P403-102821	28-Oct-21	Fruit	<22.8	<15.2	<15.2	SC1	SC1-N4	P4	36
SC1-N4-FR-P406-102821	28-Oct-21	Fruit	<16.2	<10.8	<10.8	SC1	SC1-N4	P4	72
SC1-S1-FR-P500-102821	28-Oct-21	Fruit	<22.8	<15.2	<15.2	SC1	SC1-S1	P5	6
SC1-S1-FR-P501-102821	28-Oct-21	Fruit	<21.3	<14.2	<14.2	SC1	SC1-S1	P5	12
SC1-S1-FR-P503-102821	28-Oct-21	Fruit	<24.6	<16.4	<16.4	SC1	SC1-S1	P5	36
SC1-S1-FR-P506-102821	28-Oct-21	Fruit	<22.3	<14.9	<14.9	SC1	SC1-S1	P5	72
SC1-N1-FR-CTLU-102921	29-Oct-21	Fruit	<15.4	<10.3	<10.3	SC1	SC1-N1	None	~
SC1-N2-FR-CTLU-102921	29-Oct-21	Fruit	<19.5	<13.0	<13.0	SC1	SC1-N2	None	~
SC3-S2-FR-P100-102921	29-Oct-21	Fruit	<15.4	<5.14	<10.3	SC3	SC3-S2	P1	6
SC3-S2-FR-P101-102921	29-Oct-21	Fruit	<21.3	<7.11	<7.11	SC3	SC3-S2	P1	12
SC3-S2-FR-P103-102921	29-Oct-21	Fruit	<13.9	<4.65	<9.29	SC3	SC3-S2	P1	36
SC3-S2-FR-P106-102921	29-Oct-21	Fruit	<17.1	<5.71	<5.71	SC3	SC3-S2	P1	72
SC3-S2-FR-P200-102921	29-Oct-21	Fruit	<25.5	<17.0	<17.0	SC3	SC3-S2	P2	6
SC3-S2-FR-P201-102921	29-Oct-21	Fruit	<21.0	<6.99	<6.99	SC3	SC3-S2	P2	12
SC3-S2-FR-P203-102921	29-Oct-21	Fruit	<16.4	<5.46	<5.46	SC3	SC3-S2	P2	36
SC3-S2-FR-P206-102921	29-Oct-21	Fruit	<24.5	<8.17	<8.17	SC3	SC3-S2	P2	72
SC3-S2-FR-P300-102921	29-Oct-21	Fruit	<18.9	<6.30	<12.6	SC3	SC3-S2	P3	6
SC3-S2-FR-P301-102921	29-Oct-21	Fruit	<20.5	<6.82	<6.82	SC3	SC3-S2	P3	12
SC3-S2-FR-P303-102921	29-Oct-21	Fruit	<20.9	<6.97	<6.97	SC3	SC3-S2	P3	36
SC3-S2-FR-P306-102921	29-Oct-21	Fruit	<10.6	<3.55	<7.09	SC3	SC3-S2	P3	72
SC3-N3-FR-P400-102921	29-Oct-21	Fruit	<23.9	<15.9	<15.9	SC3	SC3-N3	P4	6
SC3-N3-FR-P401-102921	29-Oct-21	Fruit	<12.3	<4.10	<8.19	SC3	SC3-N3	P4	12
SC3-N3-FR-P403-102921	29-Oct-21	Fruit	<13.3	<4.44	<8.88	SC3	SC3-N3	P4	36
SC3-N3-FR-P406-102921	29-Oct-21	Fruit	<14.1	<4.70	<9.40	SC3	SC3-N3	P4	72
SC3-M1-FR-P500-102921	29-Oct-21	Fruit	<12.6	<4.19	<8.37	SC3	SC3-M1	P5	6
SC3-M1-FR-P501-102921	29-Oct-21	Fruit	<19.7	<6.58	<6.58	SC3	SC3-M1	P5	12
SC3-M1-FR-P503-102921	29-Oct-21	Fruit	<20.8	<6.93	<6.93	SC3	SC3-M1	P5	36
SC3-M1-FR-P506-102921	29-Oct-21	Fruit	<17.9	<5.98	<5.98	SC3	SC3-M1	P5	72
SC3-N1-FR-CTLP-102921	29-Oct-21	Fruit	<16.9	<5.63	<11.3	SC3	SC3-N1	None	~
SC3-N4-FR-CTLP-102921	29-Oct-21	Fruit	<15.7	<5.23	<5.23	SC3	SC3-N4	None	~

* = Results of resampling performed on November 10, 2021.

Table 4
Summary of Groundwater Analytical Data
Solar Carver 1 (Tremont) and Solar Carver 3 (Rochester)
Carver, Massachusetts

SAMPLE ID	SAMPLE DATE	MATRIX	Arsenic (mg/L)	Chromium (mg/L)	Copper (mg/L)	Project
Massachusetts Drinking Water Standards:			**0.010**	**0.1**	**1.4**	
SC1-MW01-110121	1-Nov-21	GW	<0.00800	0.0545	0.0264	SC1
SC1-MW02-110121	1-Nov-21	GW	<0.00800	0.0513	0.0286	SC1
SC1-MW03-110121	1-Nov-21	GW	0.00840	0.0140	0.0456	SC1
SC3-MW01-110121	1-Nov-21	GW	<0.00800	<0.0100	<0.0100	SC3
SC3-MW02-110121	1-Nov-21	GW	<0.00800	0.0279	0.0272	SC3
SC3-MW03-110121	1-Nov-21	GW	<0.00800	<0.0100	<0.0100	SC3

Attachment C

Laboratory Data Reports

Soil Analytical Data Reports

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 8, 2021

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: R2021054.000.004
Laboratory Work Order Number: 21J1833

Enclosed are results of analyses for samples as received by the laboratory on October 28, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/8/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: R2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1833

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N6-SO-P100-0003-102821	21J1833-01	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P100-0306-102821	21J1833-02	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P101-0003-102821	21J1833-03	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P101-0306-102821	21J1833-04	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P103-0003-102821	21J1833-05	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	

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105 Central St Suite 4100
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ATTN: Steve Vetere

REPORT DATE: 11/8/2021

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ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1833

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N6-SO-P103-0306-102821	21J1833-06	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P106-0003-102821	21J1833-07	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P106-0306-102821	21J1833-08	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P200-0003-102821	21J1833-09	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P200-0306-102821	21J1833-10	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/8/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: R2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1833

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N6-SO-P201-0003-102821	21J1833-11	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P201-0306-102821	21J1833-12	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P203-0003-102821	21J1833-13	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P203-0306-102821	21J1833-14	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P206-0003-102821	21J1833-15	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	

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REPORT DATE: 11/8/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: R2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1833

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N6-SO-P206-0306-102821	21J1833-16	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P300-0003-102821	21J1833-17	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P300-0306-102821	21J1833-18	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P301-0003-102821	21J1833-19	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P301-0306-102821	21J1833-20	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 6010D

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Iron

21J1833-09[SC1-N6-SO-P200-0003-102821], B293980-MS2, B293980-MSD2

SW-846 7196A

Qualifications:

MS-16

For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1833-01[SC1-N6-SO-P100-0003-102821], B293555-MS1, B293555-MS2, B293555-MS3, B293555-MSD2

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

B293555-BSD1

W-06

Elevated method reporting limit due to intense color of sample

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1833-01[SC1-N6-SO-P100-0003-102821], 21J1833-02[SC1-N6-SO-P100-0306-102821], 21J1833-03[SC1-N6-SO-P101-0003-102821], 21J1833-04[SC1-N6-SO-P101-0306-102821], 21J1833-05[SC1-N6-SO-P103-0003-102821], 21J1833-06[SC1-N6-SO-P103-0306-102821], 21J1833-07[SC1-N6-SO-P106-0003-102821], 21J1833-08[SC1-N6-SO-P106-0306-102821], 21J1833-09[SC1-N6-SO-P200-0003-102821], 21J1833-10[SC1-N6-SO-P200-0306-102821], 21J1833-11[SC1-N6-SO-P201-0003-102821], 21J1833-12[SC1-N6-SO-P201-0306-102821], 21J1833-13[SC1-N6-SO-P203-0003-102821], 21J1833-14[SC1-N6-SO-P203-0306-102821], 21J1833-15[SC1-N6-SO-P206-0003-102821], 21J1833-16[SC1-N6-SO-P206-0306-102821], 21J1833-17[SC1-N6-SO-P300-0003-102821], 21J1833-18[SC1-N6-SO-P300-0306-102821], 21J1833-19[SC1-N6-SO-P301-0003-102821], 21J1833-20[SC1-N6-SO-P301-0306-102821]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Daren J. Damboragian
Director of Operations

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P100-0003-102821 | Sampled: 10/28/2021 09:40

Sample ID: 21J1833-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	10	5.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:26	QNW
Chromium	13	1.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:26	QNW
Copper	14	1.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:26	QNW
Iron	2800	25	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:26	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P100-0003-102821 | Sampled: 10/28/2021 09:40

Sample ID: 21J1833-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	64.5		% Wt	1		SM 2540G	11/2/21	11/2/21 17:03	DRL
Hexavalent Chromium	ND	1.2	mg/Kg dry	5	MS-16, W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	110		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @22°C	4.4		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P100-0003-102821 | Sampled: 10/28/2021 09:40

Sample ID: 21J1833-01

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	107	8.1	mg/kg	1		EPA 6010		11/3/21 10:41	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P100-0306-102821 | Sampled: 10/28/2021 09:45

Sample ID: 21J1833-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:32	QNW
Chromium	4.2	0.78	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:32	QNW
Copper	4.8	0.78	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:32	QNW
Iron	2300	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:32	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P100-0306-102821 | Sampled: 10/28/2021 09:45

Sample ID: 21J1833-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.5		% Wt	1		SM 2540G	11/2/21	11/2/21 17:04	DRL
Hexavalent Chromium	ND	0.90	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	120		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @22.1°C	5.1		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P100-0306-102821
Sampled: 10/28/2021 09:45

Sample ID: 21J1833-02

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	60.2	7.6	mg/kg	1		EPA 6010		11/3/21 12:30	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P101-0003-102821
Sampled: 10/28/2021 10:15

Sample ID: 21J1833-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:39	QNW
Chromium	5.1	0.95	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:39	QNW
Copper	8.8	0.95	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:39	QNW
Iron	3700	24	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:39	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P101-0003-102821 | Sampled: 10/28/2021 10:15

Sample ID: 21J1833-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	69.2		% Wt	1		SM 2540G	11/2/21	11/2/21 17:04	DRL
Hexavalent Chromium	ND	1.1	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	150		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @21.6°C	4.5		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P101-0003-102821 | Sampled: 10/28/2021 10:15

Sample ID: 21J1833-03

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	69.3	9.1	mg/kg	1		EPA 6010		11/3/21 12:34	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P101-0306-102821 | Sampled: 10/28/2021 10:20

Sample ID: 21J1833-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:44	QNW
Chromium	2.8	0.84	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:44	QNW
Copper	3.2	0.84	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:44	QNW
Iron	2600	21	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:44	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P101-0306-102821 | Sampled: 10/28/2021 10:20

Sample ID: 21J1833-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.0		% Wt	1		SM 2540G	11/2/21	11/2/21 17:04	DRL
Hexavalent Chromium	ND	1.0	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	140		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @22.1°C	5.1		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P101-0306-102821
Sampled: 10/28/2021 10:20

Sample ID: 21J1833-04

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	28.7	8.8	mg/kg	1		EPA 6010		11/3/21 12:38	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P103-0003-102821 | Sampled: 10/28/2021 10:05

Sample ID: 21J1833-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:49	QNW
Chromium	3.8	1.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:49	QNW
Copper	6.1	1.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:49	QNW
Iron	2900	26	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:49	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P103-0003-102821 | Sampled: 10/28/2021 10:05

Sample ID: 21J1833-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:04	DRL
Hexavalent Chromium	ND	1.3	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	160		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @21.4°C	4.7		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P103-0003-102821
Sampled: 10/28/2021 10:05

Sample ID: 21J1833-05

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	81.9	9.8	mg/kg	1		EPA 6010		11/3/21 12:42	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P103-0306-102821 | Sampled: 10/28/2021 10:10

Sample ID: 21J1833-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:54	QNW
Chromium	2.8	0.76	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:54	QNW
Copper	2.6	0.76	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:54	QNW
Iron	2400	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:54	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P103-0306-102821 | Sampled: 10/28/2021 10:10

Sample ID: 21J1833-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:04	DRL
Hexavalent Chromium	ND	0.93	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	160		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @21°C	4.8		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P103-0306-102821
Sampled: 10/28/2021 10:10

Sample ID: 21J1833-06

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	158	7.4	mg/kg	1		EPA 6010		11/3/21 12:54	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P106-0003-102821 | Sampled: 10/28/2021 09:50

Sample ID: 21J1833-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.6	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:58	QNW
Chromium	2.9	0.91	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:58	QNW
Copper	6.9	0.91	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:58	QNW
Iron	2500	23	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:58	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P106-0003-102821 | Sampled: 10/28/2021 09:50

Sample ID: 21J1833-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	69.0		% Wt	1		SM 2540G	11/2/21	11/2/21 17:04	DRL
Hexavalent Chromium	ND	2.2	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	180		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @21.4°C	4.8		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P106-0003-102821
Sampled: 10/28/2021 09:50

Sample ID: 21J1833-07

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	97.4	9.4	mg/kg	1		EPA 6010		11/3/21 12:58	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P106-0306-102821
Sampled: 10/28/2021 09:55

Sample ID: 21J1833-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 14:03	QNW
Chromium	3.0	0.75	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 14:03	QNW
Copper	5.0	0.75	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 14:03	QNW
Iron	2800	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 14:03	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P106-0306-102821 | Sampled: 10/28/2021 09:55

Sample ID: 21J1833-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.7		% Wt	1		SM 2540G	11/2/21	11/2/21 17:05	DRL
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	160		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @22.2°C	5.3		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P106-0306-102821
Sampled: 10/28/2021 09:55

Sample ID: 21J1833-08

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	48	8.1	mg/kg	1		EPA 6010		11/3/21 13:06	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P200-0003-102821 | Sampled: 10/28/2021 11:10

Sample ID: 21J1833-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	8.8	7.1	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 16:59	MJH
Chromium	8.1	1.4	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 16:59	MJH
Copper	38	1.4	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 16:59	MJH
Iron	5400	36	mg/Kg dry	1	MS-19	SW-846 6010D	11/4/21	11/5/21 16:59	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P200-0003-102821 | Sampled: 10/28/2021 11:10

Sample ID: 21J1833-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	45.5		% Wt	1		SM 2540G	11/2/21	11/2/21 17:05	DRL
Hexavalent Chromium	ND	3.4	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	190		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @20.1°C	4.7		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P200-0003-102821
Sampled: 10/28/2021 11:10

Sample ID: 21J1833-09

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	102	8.5	mg/kg	1		EPA 6010		11/3/21 13:10	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P200-0306-102821 | Sampled: 10/28/2021 11:15

Sample ID: 21J1833-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:35	QNW
Chromium	3.1	0.94	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:35	QNW
Copper	5.0	0.94	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:35	QNW
Iron	2900	24	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:35	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P200-0306-102821 | Sampled: 10/28/2021 11:15

Sample ID: 21J1833-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:05	DRL
Hexavalent Chromium	ND	1.1	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	190		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @21.1°C	5.1		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P200-0306-102821
Sampled: 10/28/2021 11:15

Sample ID: 21J1833-10

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	37	9.4	mg/kg	1		EPA 6010		11/3/21 13:14	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P201-0003-102821 | Sampled: 10/28/2021 11:30

Sample ID: 21J1833-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.4	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:40	QNW
Chromium	3.0	1.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:40	QNW
Copper	9.2	1.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:40	QNW
Iron	3400	27	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:40	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P201-0003-102821 | Sampled: 10/28/2021 11:30

Sample ID: 21J1833-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:05	DRL
Hexavalent Chromium	ND	2.6	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	200		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @20.8°C	4.8		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P201-0003-102821 | Sampled: 10/28/2021 11:30

Sample ID: 21J1833-11

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	86.5	8.8	mg/kg	1		EPA 6010		11/3/21 14:30	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P201-0306-102821 | Sampled: 10/28/2021 11:35

Sample ID: 21J1833-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:45	QNW
Chromium	4.3	0.93	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:45	QNW
Copper	5.3	0.93	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:45	QNW
Iron	3900	23	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:45	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P201-0306-102821 | Sampled: 10/28/2021 11:35

Sample ID: 21J1833-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	67.1		% Wt	1		SM 2540G	11/2/21	11/2/21 17:05	DRL
Hexavalent Chromium	ND	2.3	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	190		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @20.9°C	4.9		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P201-0306-102821
Sampled: 10/28/2021 11:35

Sample ID: 21J1833-12

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	31.4	7.6	mg/kg	1		EPA 6010		11/3/21 14:35	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P203-0003-102821
Sampled: 10/28/2021 11:40

Sample ID: 21J1833-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	8.5	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:50	QNW
Chromium	4.2	1.7	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:50	QNW
Copper	11	1.7	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:50	QNW
Iron	4800	42	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:50	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P203-0003-102821 | Sampled: 10/28/2021 11:40

Sample ID: 21J1833-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	39.4		% Wt	1		SM 2540G	11/2/21	11/2/21 17:05	DRL
Hexavalent Chromium	ND	4.0	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	200		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @20.2°C	4.7		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P203-0003-102821
Sampled: 10/28/2021 11:40

Sample ID: 21J1833-13

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	75.5	7.7	mg/kg	1		EPA 6010		11/3/21 14:39	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P203-0306-102821
Sampled: 10/28/2021 11:45

Sample ID: 21J1833-14

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	7.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:55	QNW
Chromium	2.4	1.4	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:55	QNW
Copper	9.9	1.4	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:55	QNW
Iron	4100	36	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 16:55	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P203-0306-102821 | Sampled: 10/28/2021 11:45

Sample ID: 21J1833-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	46.2		% Wt	1		SM 2540G	11/2/21	11/2/21 17:05	DRL
Hexavalent Chromium	ND	3.4	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	200		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @19.2°C	5.2		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P203-0306-102821
Sampled: 10/28/2021 11:45

Sample ID: 21J1833-14

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	108	7.8	mg/kg	1		EPA 6010		11/3/21 14:43	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P206-0003-102821 | Sampled: 10/28/2021 11:50

Sample ID: 21J1833-15

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.4	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:00	QNW
Chromium	2.5	1.3	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:00	QNW
Copper	7.4	1.3	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:00	QNW
Iron	3000	32	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:00	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P206-0003-102821 | Sampled: 10/28/2021 11:50

Sample ID: 21J1833-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	49.5		% Wt	1		SM 2540G	11/2/21	11/2/21 17:06	DRL
Hexavalent Chromium	ND	3.1	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @18.8°C	4.6		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P206-0003-102821
Sampled: 10/28/2021 11:50

Sample ID: 21J1833-15

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	89.7	8.8	mg/kg	1		EPA 6010		11/3/21 14:47	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P206-0306-102821
Sampled: 10/28/2021 11:55

Sample ID: 21J1833-16

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.9	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:16	QNW
Chromium	2.2	0.97	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:16	QNW
Copper	7.7	0.97	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:16	QNW
Iron	2800	24	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:16	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P206-0306-102821 | Sampled: 10/28/2021 11:55

Sample ID: 21J1833-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	65.0		% Wt	1		SM 2540G	11/2/21	11/2/21 17:06	DRL
Hexavalent Chromium	ND	1.2	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @19.4°C	4.8		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P206-0306-102821
Sampled: 10/28/2021 11:55

Sample ID: 21J1833-16

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	28.7	8.8	mg/kg	1		EPA 6010		11/3/21 14:51	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P300-0003-102821 | Sampled: 10/28/2021 12:20

Sample ID: 21J1833-17

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.9	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:21	QNW
Chromium	3.7	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:21	QNW
Copper	8.0	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:21	QNW
Iron	2600	29	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:21	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P300-0003-102821 | Sampled: 10/28/2021 12:20

Sample ID: 21J1833-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	55.1		% Wt	1		SM 2540G	11/2/21	11/2/21 17:06	DRL
Hexavalent Chromium	ND	1.4	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @19.7°C	4.8		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P300-0003-102821
Sampled: 10/28/2021 12:20

Sample ID: 21J1833-17

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	106	9.1	mg/kg	1		EPA 6010		11/3/21 14:55	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P300-0306-102821 | Sampled: 10/28/2021 12:25

Sample ID: 21J1833-18

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.4	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:27	QNW
Chromium	3.7	1.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:27	QNW
Copper	6.9	1.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:27	QNW
Iron	2800	27	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:27	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P300-0306-102821 | Sampled: 10/28/2021 12:25

Sample ID: 21J1833-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.8		% Wt	1		SM 2540G	11/2/21	11/2/21 17:06	DRL
Hexavalent Chromium	ND	1.3	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @20.5°C	4.9		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P300-0306-102821 | Sampled: 10/28/2021 12:25

Sample ID: 21J1833-18

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	87.2	9.6	mg/kg	1		EPA 6010		11/3/21 14:59	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P301-0003-102821
Sampled: 10/28/2021 12:45

Sample ID: 21J1833-19

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:34	QNW
Chromium	2.6	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:34	QNW
Copper	8.0	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:34	QNW
Iron	3000	31	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:34	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P301-0003-102821 | Sampled: 10/28/2021 12:45

Sample ID: 21J1833-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	50.4		% Wt	1		SM 2540G	11/2/21	11/2/21 17:06	DRL
Hexavalent Chromium	ND	3.1	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @20°C	4.4		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P301-0003-102821
Sampled: 10/28/2021 12:45

Sample ID: 21J1833-19

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	51.5	8.9	mg/kg	1		EPA 6010		11/3/21 15:03	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P301-0306-102821
Sampled: 10/28/2021 12:50

Sample ID: 21J1833-20

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:39	QNW
Chromium	2.4	1.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:39	QNW
Copper	7.4	1.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:39	QNW
Iron	3100	26	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:39	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P301-0306-102821 | Sampled: 10/28/2021 12:50

Sample ID: 21J1833-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	63.8		% Wt	1		SM 2540G	11/2/21	11/2/21 17:07	DRL
Hexavalent Chromium	ND	2.5	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 11:35	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/28/21	10/28/21 21:15	CB2
pH @20.2°C	4.9		pH Units	1		SW-846 9045C	10/28/21	10/28/21 21:15	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1833

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P301-0306-102821
Sampled: 10/28/2021 12:50

Sample ID: 21J1833-20

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	96.5	7.2	mg/kg	1		EPA 6010		11/3/21 15:07	PSR

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1833-01 [SC1-N6-SO-P100-0003-102821]	B293760	11/02/21
21J1833-02 [SC1-N6-SO-P100-0306-102821]	B293760	11/02/21
21J1833-03 [SC1-N6-SO-P101-0003-102821]	B293760	11/02/21
21J1833-04 [SC1-N6-SO-P101-0306-102821]	B293760	11/02/21
21J1833-05 [SC1-N6-SO-P103-0003-102821]	B293760	11/02/21
21J1833-06 [SC1-N6-SO-P103-0306-102821]	B293760	11/02/21
21J1833-07 [SC1-N6-SO-P106-0003-102821]	B293760	11/02/21
21J1833-08 [SC1-N6-SO-P106-0306-102821]	B293760	11/02/21
21J1833-09 [SC1-N6-SO-P200-0003-102821]	B293760	11/02/21
21J1833-10 [SC1-N6-SO-P200-0306-102821]	B293760	11/02/21
21J1833-11 [SC1-N6-SO-P201-0003-102821]	B293760	11/02/21
21J1833-12 [SC1-N6-SO-P201-0306-102821]	B293760	11/02/21
21J1833-13 [SC1-N6-SO-P203-0003-102821]	B293760	11/02/21
21J1833-14 [SC1-N6-SO-P203-0306-102821]	B293760	11/02/21
21J1833-15 [SC1-N6-SO-P206-0003-102821]	B293760	11/02/21
21J1833-16 [SC1-N6-SO-P206-0306-102821]	B293760	11/02/21
21J1833-17 [SC1-N6-SO-P300-0003-102821]	B293760	11/02/21
21J1833-18 [SC1-N6-SO-P300-0306-102821]	B293760	11/02/21
21J1833-19 [SC1-N6-SO-P301-0003-102821]	B293760	11/02/21
21J1833-20 [SC1-N6-SO-P301-0306-102821]	B293760	11/02/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1833-01 [SC1-N6-SO-P100-0003-102821]	B293530	20.0	10/28/21
21J1833-02 [SC1-N6-SO-P100-0306-102821]	B293530	20.0	10/28/21
21J1833-03 [SC1-N6-SO-P101-0003-102821]	B293530	20.0	10/28/21
21J1833-04 [SC1-N6-SO-P101-0306-102821]	B293530	20.0	10/28/21
21J1833-05 [SC1-N6-SO-P103-0003-102821]	B293530	20.0	10/28/21
21J1833-06 [SC1-N6-SO-P103-0306-102821]	B293530	20.0	10/28/21
21J1833-07 [SC1-N6-SO-P106-0003-102821]	B293530	20.0	10/28/21
21J1833-08 [SC1-N6-SO-P106-0306-102821]	B293530	20.0	10/28/21
21J1833-09 [SC1-N6-SO-P200-0003-102821]	B293530	20.0	10/28/21
21J1833-10 [SC1-N6-SO-P200-0306-102821]	B293530	20.0	10/28/21
21J1833-11 [SC1-N6-SO-P201-0003-102821]	B293530	20.0	10/28/21
21J1833-12 [SC1-N6-SO-P201-0306-102821]	B293530	20.0	10/28/21
21J1833-13 [SC1-N6-SO-P203-0003-102821]	B293530	20.0	10/28/21
21J1833-14 [SC1-N6-SO-P203-0306-102821]	B293530	20.0	10/28/21
21J1833-15 [SC1-N6-SO-P206-0003-102821]	B293530	20.0	10/28/21
21J1833-16 [SC1-N6-SO-P206-0306-102821]	B293530	20.0	10/28/21
21J1833-17 [SC1-N6-SO-P300-0003-102821]	B293530	20.0	10/28/21
21J1833-18 [SC1-N6-SO-P300-0306-102821]	B293530	20.0	10/28/21
21J1833-19 [SC1-N6-SO-P301-0003-102821]	B293530	20.0	10/28/21
21J1833-20 [SC1-N6-SO-P301-0306-102821]	B293530	20.0	10/28/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1833-10 [SC1-N6-SO-P200-0306-102821]	B293811	1.54	50.0	11/02/21
21J1833-11 [SC1-N6-SO-P201-0003-102821]	B293811	1.53	50.0	11/02/21
21J1833-12 [SC1-N6-SO-P201-0306-102821]	B293811	1.60	50.0	11/02/21
21J1833-13 [SC1-N6-SO-P203-0003-102821]	B293811	1.50	50.0	11/02/21
21J1833-14 [SC1-N6-SO-P203-0306-102821]	B293811	1.51	50.0	11/02/21

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Sample Extraction Data

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1833-15 [SC1-N6-SO-P206-0003-102821]	B293811	1.58	50.0	11/02/21
21J1833-16 [SC1-N6-SO-P206-0306-102821]	B293811	1.58	50.0	11/02/21
21J1833-17 [SC1-N6-SO-P300-0003-102821]	B293811	1.55	50.0	11/02/21
21J1833-18 [SC1-N6-SO-P300-0306-102821]	B293811	1.54	50.0	11/02/21
21J1833-19 [SC1-N6-SO-P301-0003-102821]	B293811	1.60	50.0	11/02/21
21J1833-20 [SC1-N6-SO-P301-0306-102821]	B293811	1.51	50.0	11/02/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1833-01 [SC1-N6-SO-P100-0003-102821]	B293839	1.56	50.0	11/02/21
21J1833-02 [SC1-N6-SO-P100-0306-102821]	B293839	1.51	50.0	11/02/21
21J1833-03 [SC1-N6-SO-P101-0003-102821]	B293839	1.52	50.0	11/02/21
21J1833-04 [SC1-N6-SO-P101-0306-102821]	B293839	1.57	50.0	11/02/21
21J1833-05 [SC1-N6-SO-P103-0003-102821]	B293839	1.56	50.0	11/02/21
21J1833-06 [SC1-N6-SO-P103-0306-102821]	B293839	1.58	50.0	11/02/21
21J1833-07 [SC1-N6-SO-P106-0003-102821]	B293839	1.58	50.0	11/02/21
21J1833-08 [SC1-N6-SO-P106-0306-102821]	B293839	1.58	50.0	11/02/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1833-09 [SC1-N6-SO-P200-0003-102821]	B293980	1.54	50.0	11/04/21

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1833-01 [SC1-N6-SO-P100-0003-102821]	B293555	2.52	100	10/29/21
21J1833-02 [SC1-N6-SO-P100-0306-102821]	B293555	2.59	100	10/29/21
21J1833-03 [SC1-N6-SO-P101-0003-102821]	B293555	2.52	100	10/29/21
21J1833-04 [SC1-N6-SO-P101-0306-102821]	B293555	2.51	100	10/29/21
21J1833-05 [SC1-N6-SO-P103-0003-102821]	B293555	2.55	100	10/29/21
21J1833-06 [SC1-N6-SO-P103-0306-102821]	B293555	2.56	100	10/29/21
21J1833-07 [SC1-N6-SO-P106-0003-102821]	B293555	2.59	100	10/29/21
21J1833-08 [SC1-N6-SO-P106-0306-102821]	B293555	2.59	100	10/29/21
21J1833-09 [SC1-N6-SO-P200-0003-102821]	B293555	2.59	100	10/29/21
21J1833-10 [SC1-N6-SO-P200-0306-102821]	B293555	2.53	100	10/29/21
21J1833-11 [SC1-N6-SO-P201-0003-102821]	B293555	2.54	100	10/29/21
21J1833-12 [SC1-N6-SO-P201-0306-102821]	B293555	2.60	100	10/29/21
21J1833-13 [SC1-N6-SO-P203-0003-102821]	B293555	2.57	100	10/29/21
21J1833-14 [SC1-N6-SO-P203-0306-102821]	B293555	2.57	100	10/29/21
21J1833-15 [SC1-N6-SO-P206-0003-102821]	B293555	2.58	100	10/29/21
21J1833-16 [SC1-N6-SO-P206-0306-102821]	B293555	2.59	100	10/29/21
21J1833-17 [SC1-N6-SO-P300-0003-102821]	B293555	2.57	100	10/29/21
21J1833-18 [SC1-N6-SO-P300-0306-102821]	B293555	2.56	100	10/29/21
21J1833-19 [SC1-N6-SO-P301-0003-102821]	B293555	2.59	100	10/29/21
21J1833-20 [SC1-N6-SO-P301-0306-102821]	B293555	2.52	100	10/29/21

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Sample Extraction Data

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1833-01 [SC1-N6-SO-P100-0003-102821]	B293529	20.0	10/28/21
21J1833-02 [SC1-N6-SO-P100-0306-102821]	B293529	20.0	10/28/21
21J1833-03 [SC1-N6-SO-P101-0003-102821]	B293529	20.0	10/28/21
21J1833-04 [SC1-N6-SO-P101-0306-102821]	B293529	20.0	10/28/21
21J1833-05 [SC1-N6-SO-P103-0003-102821]	B293529	20.0	10/28/21
21J1833-06 [SC1-N6-SO-P103-0306-102821]	B293529	20.0	10/28/21
21J1833-07 [SC1-N6-SO-P106-0003-102821]	B293529	20.0	10/28/21
21J1833-08 [SC1-N6-SO-P106-0306-102821]	B293529	20.0	10/28/21
21J1833-09 [SC1-N6-SO-P200-0003-102821]	B293529	20.0	10/28/21
21J1833-10 [SC1-N6-SO-P200-0306-102821]	B293529	20.0	10/28/21
21J1833-11 [SC1-N6-SO-P201-0003-102821]	B293529	20.0	10/28/21
21J1833-12 [SC1-N6-SO-P201-0306-102821]	B293529	20.0	10/28/21
21J1833-13 [SC1-N6-SO-P203-0003-102821]	B293529	20.0	10/28/21
21J1833-14 [SC1-N6-SO-P203-0306-102821]	B293529	20.0	10/28/21
21J1833-15 [SC1-N6-SO-P206-0003-102821]	B293529	20.0	10/28/21
21J1833-16 [SC1-N6-SO-P206-0306-102821]	B293529	20.0	10/28/21
21J1833-17 [SC1-N6-SO-P300-0003-102821]	B293529	20.0	10/28/21
21J1833-18 [SC1-N6-SO-P300-0306-102821]	B293529	20.0	10/28/21
21J1833-19 [SC1-N6-SO-P301-0003-102821]	B293529	20.0	10/28/21
21J1833-20 [SC1-N6-SO-P301-0306-102821]	B293529	20.0	10/28/21

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293811 - SW-846 3050B										
Blank (B293811-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
LCS (B293811-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	172	10	mg/Kg wet	170		101	82.9-117.6			
Chromium	107	2.0	mg/Kg wet	101		105	82.1-117.8			
Copper	166	2.0	mg/Kg wet	149		111	83.9-116.1			
Iron	10100	50	mg/Kg wet	14100		71.8	60-139.7			
LCS Dup (B293811-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	164	9.6	mg/Kg wet	170		96.3	82.9-117.6	4.70	30	
Chromium	99.9	1.9	mg/Kg wet	101		98.9	82.1-117.8	6.40	30	
Copper	153	1.9	mg/Kg wet	149		103	83.9-116.1	7.70	30	
Iron	10100	48	mg/Kg wet	14100		71.6	60-139.7	0.310	30	
Batch B293839 - SW-846 3050B										
Blank (B293839-BLK1)				Prepared: 11/02/21 Analyzed: 11/04/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
LCS (B293839-BS1)				Prepared: 11/02/21 Analyzed: 11/04/21						
Arsenic	150	9.5	mg/Kg wet	170		88.4	82.9-117.6			
Chromium	94.7	1.9	mg/Kg wet	101		93.8	82.1-117.8			
Copper	148	1.9	mg/Kg wet	149		99.1	83.9-116.1			
Iron	9770	48	mg/Kg wet	14100		69.3	60-139.7			
LCS Dup (B293839-BSD1)				Prepared: 11/02/21 Analyzed: 11/04/21						
Arsenic	147	9.7	mg/Kg wet	170		86.2	82.9-117.6	2.50	30	
Chromium	88.6	1.9	mg/Kg wet	101		87.7	82.1-117.8	6.66	30	
Copper	139	1.9	mg/Kg wet	149		93.5	83.9-116.1	5.81	30	
Iron	9590	48	mg/Kg wet	14100		68.0	60-139.7	1.85	30	
Batch B293980 - SW-846 3050B										
Blank (B293980-BLK1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293980 - SW-846 3050B											
LCS (B293980-BS1)				Prepared: 11/04/21 Analyzed: 11/05/21							
Arsenic	165	9.6	mg/Kg wet	170		97.3		82.9-117.6			
Chromium	103	1.9	mg/Kg wet	101		102		82.1-117.8			
Copper	157	1.9	mg/Kg wet	149		105		83.9-116.1			
Iron	11500	48	mg/Kg wet	14100		81.3		60-139.7			
LCS Dup (B293980-BSD1)				Prepared: 11/04/21 Analyzed: 11/05/21							
Arsenic	158	9.6	mg/Kg wet	170		92.8		82.9-117.6	4.71	30	
Chromium	103	1.9	mg/Kg wet	101		102		82.1-117.8	0.0385	30	
Copper	152	1.9	mg/Kg wet	149		102		83.9-116.1	3.58	30	
Iron	11200	48	mg/Kg wet	14100		79.8		60-139.7	1.96	30	
Matrix Spike (B293980-MS2)		**Source: 21J1833-09**		Prepared: 11/04/21 Analyzed: 11/05/21							
Arsenic	40.9	6.9	mg/Kg dry	34.5	8.80	93.0		75-125			
Chromium	44.8	1.4	mg/Kg dry	34.5	8.13	106		75-125			
Copper	122	1.4	mg/Kg dry	69.1	37.8	121		75-125			
Iron	5310	35	mg/Kg dry	276	5410	**-37.6**	*	75-125			MS-19
Matrix Spike Dup (B293980-MSD2)		**Source: 21J1833-09**		Prepared: 11/04/21 Analyzed: 11/05/21							
Arsenic	40.9	7.1	mg/Kg dry	35.5	8.80	90.4		75-125	0.0582	35	
Chromium	44.3	1.4	mg/Kg dry	35.5	8.13	102		75-125	1.17	35	
Copper	102	1.4	mg/Kg dry	71.0	37.8	89.9		75-125	17.9	35	
Iron	5110	35	mg/Kg dry	284	5410	**-105**	*	75-125	3.73	35	MS-19

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B293529 - SW-846 9045C												
LCS (B293529-BS1)				Prepared & Analyzed: 10/28/21								
pH	6.03		pH Units	6.00		100		90-110				
LCS (B293529-BS2)				Prepared & Analyzed: 10/28/21								
pH	6.01		pH Units	6.00		100		90-110				
Duplicate (B293529-DUP1)	**Source: 21J1833-10**			Prepared & Analyzed: 10/28/21								
pH	5.2		pH Units		5.1				1.63		10	
Duplicate (B293529-DUP2)	**Source: 21J1833-20**			Prepared & Analyzed: 10/28/21								
pH	5.0		pH Units		4.9				1.30		10	
Batch B293530 - SM2580 A												
Duplicate (B293530-DUP1)	**Source: 21J1833-10**			Prepared & Analyzed: 10/28/21								
Oxidation/Reduction Potential	184		mV		187				1.62		14.4	
Duplicate (B293530-DUP2)	**Source: 21J1833-20**			Prepared & Analyzed: 10/28/21								
Oxidation/Reduction Potential	218		mV		214				1.85		14.4	
Batch B293555 - SW-846 7196A												
Blank (B293555-BLK1)				Prepared: 10/29/21 Analyzed: 11/01/21								
Hexavalent Chromium	ND	0.16	mg/Kg wet									
LCS (B293555-BS1)				Prepared: 10/29/21 Analyzed: 11/01/21								
Hexavalent Chromium	80	3.9	mg/Kg wet	89.9		89.1		80-120				
LCS Dup (B293555-BSD1)				Prepared: 10/29/21 Analyzed: 11/01/21								
Hexavalent Chromium	100	3.9	mg/Kg wet	91.3		114		80-120	**26.1**	*	20	R-05
Matrix Spike (B293555-MS1)	**Source: 21J1833-01**			Prepared: 10/29/21 Analyzed: 11/01/21								
Hexavalent Chromium	22	2.5	mg/Kg dry	61.9	ND	**36.2**	*	85-115				MS-16
Matrix Spike (B293555-MS2)	**Source: 21J1833-01**			Prepared: 10/29/21 Analyzed: 11/01/21								
Hexavalent Chromium	42	2.5	mg/Kg dry	61.7	ND	**68.3**	*	85-115				MS-16
Matrix Spike (B293555-MS3)	**Source: 21J1833-01**			Prepared: 10/29/21 Analyzed: 11/01/21								
Hexavalent Chromium	300	25	mg/Kg dry	986	ND	**30.6**	*	85-115				MS-16
Matrix Spike Dup (B293555-MSD2)	**Source: 21J1833-01**			Prepared: 10/29/21 Analyzed: 11/01/21								
Hexavalent Chromium	20	2.4	mg/Kg dry	61.0	ND	**32.3**	*	85-115	**72.3**	*	35	MS-16

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-16	For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
W-06	Elevated method reporting limit due to intense color of sample

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

21J1833

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Environment Testing New England

CHAIN OF CUSTODY RECORD

Page 1 of 4

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed: 11/5/2021

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Mabbett & Associates, Inc
105 Central St., Suite 4100
Stoneham MA 02180

Telephone #: 781-279-0050
Project Mgr: S. Vetere

Invoice To: Same as Report to

P.O No.: 5948 Quote #: 00102623

Project No: R2021054.000.004
Site Name: SC-1
Location: Carver State: MA
Sampler(s): MLB / DWM

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

List Preservative Code below: I I

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other Level IV
State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Total As, Cr, Cu, S, Fe	Cr VI	pH, ORP	Check if chlorinated
1	SC1-N6-SO-P100-0003-102821	10/28	940		SO		2			X	X	X	☐
2	SC1-N6-SO-P100-0306-102821		945				2			X	X	X	☐
3	SC1-N6-SO-P101-0003-102824		1015				2			X	X	X	☐
4	SC1-N6-SO-P101-0306-102824		1020				2			X	X	X	☐
5	SC1-N6-SO-P103-0003-102824		1005				2			X	X	X	☐
6	SC1-N6-SO-P103-0306-102824		1010				2			X	X	X	☐
7	SC1-N6-SO-P106-0003-102824		950				2			X	X	X	☐
8	SC1-N6-SO-P106-0306-102824		955				2			X	X	X	☐
9	SC1-N6-SO-P200-0003-102824		1110				2			X	X	X	☐
10	SC1-N6-SO-P200-0306-102824		1115				2			X	X	X	☐

Relinquished by:	Received by:	Date:	Time:	Temp °C
Michael Lam	Paul Thastney	10-28-21	1456	Observed
Paul Chastney		10-28-21	1700	Correction Factor
	2.1 3.5	10.29.21	6:30	Corrected
				IR ID #

☒ EDD format: Excel
☒ E-mail to: vetere@mabbett.com
bloom@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broke
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar F

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

Rev. Jan 2020

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CHAIN OF CUSTODY RECORD

Page 2 of 4

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: 11/5/2021

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Nobbett & Associates, Inc.
105 Central St., Suite 4100
Stoneham MA 02180

Telephone #: 781-275-6050
Project Mgr: S. Vetere

Invoice To: Same As Report To

P.O No.: 5948 Quote #: Q0102625

Project No: R202054.000.004
Site Name: SC-1
Location: Carver State: Ma
Sampler(s): MCS/DWM

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= X2= X3=

G= Grab C=Composite

List Preservative Code below: I I

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other Level II
State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Total As, Cr, Cu, S, Fe	Cr 6+	pH, ORP	Check if chlorinated
11	SC1-N6-SO-P204-0003-102821	10/28	1130				1	1		X	X	X	☐
12	SC1-N6-SO-P201-0306-102821		1135				1	1					☐
13	SC1-N6-SO-P203-0003-102821		1140				1	1					☐
14	SC1-N6-SO-P203-0306-102821		1145				1	1					☐
15	SC1-N6-SO-P206-0003-102821		1150				1	1					☐
16	SC1-N6-SO-P206-0306-102821		1155				1	1					☐
17	SC1-N6-SO-P300-0003-102821		1220				1	1					☐
18	SC1-N6-SO-P300-0306-102821		1225				1	1					☐
19	SC1-N6-SO-P301-0003-102821		1245				1	1					☐
20	SC1-N6-SO-P301-0306-102821		1250				1	1					☐

Relinquished by:	Received by:	Date:	Time:	Temp °C
Michael K Allen	Paul Chartrey	10-28-21	1456	Observed
Paul Chartrey		10-28-21	1700	Correction Factor
	2115	10.28.21	6:30	Corrected
				IR ID #

☒ EDD format: Excel
☒ E-mail to: vetere@mabbett.com
bloom@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broke
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Fr

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
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Rev. Jan 2020

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Nabbutt

Received By MP Date 10/28 Time 1530

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____ Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp - 2.1/3.5 By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Cassie + David

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	20
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	20
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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November 8, 2021

Mike Bloom
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: R2021054.000.004
Laboratory Work Order Number: 21J1834

Enclosed are results of analyses for samples as received by the laboratory on October 28, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Mike Bloom

REPORT DATE: 11/8/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: R2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1834

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N6-SO-P303-0003-102821	21J1834-01	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P303-0306-102821	21J1834-02	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P306-0003-102821	21J1834-03	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N6-SO-P306-0306-102821	21J1834-04	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N4-SO-P400-0003-102821	21J1834-05	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Mike Bloom

REPORT DATE: 11/8/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: R2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1834

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N4-SO-P400-0306-102821	21J1834-06	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N4-SO-P401-0003-102821	21J1834-07	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N4-SO-P401-0306-102821	21J1834-08	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N4-SO-P403-0003-102821	21J1834-09	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N4-SO-P403-0306-102821	21J1834-10	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	

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Stoneham, MA 02180
ATTN: Mike Bloom

REPORT DATE: 11/8/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: R2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1834

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N4-SO-P406-0003-102821	21J1834-11	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
SC1-N4-SO-P406-0306-102821	21J1834-12	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT 11/08/2021- Samples -05 through -12 IDs revised

SM 2540G

Qualifications:

R-07

Sample and corresponding duplicate results reflect apparent non-homogeneity of sample.

Analyte & Samples(s) Qualified:

% Solids

21J1834-11[SC1-N4-SO-P406-0003-102821], 21J1834-12[SC1-N4-SO-P406-0306-102821], B293611-DUP8, B293611-DUP9

SW-846 6010D

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Iron

21J1834-06[SC1-N4-SO-P400-0306-102821], B293887-MSD1

SW-846 7196A

Qualifications:

MS-16

For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1834-01[SC1-N6-SO-P303-0003-102821], B293556-MS1, B293556-MS2, B293556-MS3, B293556-MSD1

W-06

Elevated method reporting limit due to intense color of sample

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1834-01[SC1-N6-SO-P303-0003-102821], 21J1834-02[SC1-N6-SO-P303-0306-102821], 21J1834-03[SC1-N6-SO-P306-0003-102821], 21J1834-04[SC1-N6-SO-P306-0306-102821], 21J1834-05[SC1-N4-SO-P400-0003-102821], 21J1834-06[SC1-N4-SO-P400-0306-102821], 21J1834-07[SC1-N4-SO-P401-0003-102821], 21J1834-08[SC1-N4-SO-P401-0306-102821], 21J1834-09[SC1-N4-SO-P403-0003-102821], 21J1834-10[SC1-N4-SO-P403-0306-102821], 21J1834-11[SC1-N4-SO-P406-0003-102821], 21J1834-12[SC1-N4-SO-P406-0306-102821]

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The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Kaitlyn A. Feliciano
Project Manager

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P303-0003-102821 | Sampled: 10/28/2021 12:45

Sample ID: 21J1834-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.4	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:44	QNW
Chromium	2.8	1.3	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:44	QNW
Copper	9.0	1.3	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:44	QNW
Iron	3600	32	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:44	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P303-0003-102821 | Sampled: 10/28/2021 12:45

Sample ID: 21J1834-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	51.3		% Wt	1		SM 2540G	11/2/21	11/2/21 17:07	DRL
Hexavalent Chromium	ND	3.1	mg/Kg dry	10	MS-16, W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.1°C	4.7		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P303-0003-102821 | Sampled: 10/28/2021 12:45

Sample ID: 21J1834-01

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	90.2	9.4	mg/kg	1		EPA 6010		11/2/21 18:09	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P303-0306-102821 | Sampled: 10/28/2021 12:50

Sample ID: 21J1834-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.9	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:49	QNW
Chromium	2.4	0.98	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:49	QNW
Copper	5.2	0.98	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:49	QNW
Iron	2800	24	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:49	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P303-0306-102821 | Sampled: 10/28/2021 12:50

Sample ID: 21J1834-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	66.2		% Wt	1		SM 2540G	11/2/21	11/2/21 17:07	DRL
Hexavalent Chromium	ND	1.2	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.7°C	4.9		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P303-0306-102821 | Sampled: 10/28/2021 12:50

Sample ID: 21J1834-02

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	76.8	9.6	mg/kg	1		EPA 6010		11/2/21 18:25	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P306-0003-102821 | Sampled: 10/28/2021 12:30

Sample ID: 21J1834-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	9.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:53	QNW
Chromium	3.8	1.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:53	QNW
Copper	15	1.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:53	QNW
Iron	5800	46	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:53	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P306-0003-102821 | Sampled: 10/28/2021 12:30

Sample ID: 21J1834-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	33.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:07	DRL
Hexavalent Chromium	ND	4.7	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @19.3°C	4.4		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P306-0003-102821 | Sampled: 10/28/2021 12:30

Sample ID: 21J1834-03

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	144	7.2	mg/kg	1		EPA 6010		11/2/21 18:29	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P306-0306-102821 | Sampled: 10/28/2021 12:35

Sample ID: 21J1834-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:58	QNW
Chromium	1.8	0.89	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:58	QNW
Copper	4.6	0.89	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:58	QNW
Iron	2200	22	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 17:58	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P306-0306-102821 | Sampled: 10/28/2021 12:35

Sample ID: 21J1834-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	74.1		% Wt	1		SM 2540G	11/2/21	11/2/21 17:07	DRL
Hexavalent Chromium	ND	1.0	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.5°C	4.8		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N6-SO-P306-0306-102821 | Sampled: 10/28/2021 12:35

Sample ID: 21J1834-04

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	73.8	8.8	mg/kg	1		EPA 6010		11/2/21 18:33	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P400-0003-102821 | Sampled: 10/28/2021 13:20

Sample ID: 21J1834-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 18:03	QNW
Chromium	5.8	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 18:03	QNW
Copper	26	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 18:03	QNW
Iron	3800	31	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 18:03	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P400-0003-102821 | Sampled: 10/28/2021 13:20

Sample ID: 21J1834-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	51.4		% Wt	1		SM 2540G	11/2/21	11/2/21 17:08	DRL
Hexavalent Chromium	ND	3.0	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.4°C	5.0		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P400-0003-102821 | Sampled: 10/28/2021 13:20

Sample ID: 21J1834-05

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	87.7	8.3	mg/kg	1		EPA 6010		11/2/21 18:37	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P400-0306-102821 | Sampled: 10/28/2021 12:35

Sample ID: 21J1834-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	9.5	mg/Kg dry	1		SW-846 6010D	11/3/21	11/4/21 17:28	MJH
Chromium	4.9	1.9	mg/Kg dry	1		SW-846 6010D	11/3/21	11/4/21 17:28	MJH
Copper	8.2	1.9	mg/Kg dry	1		SW-846 6010D	11/3/21	11/4/21 17:28	MJH
Iron	5200	48	mg/Kg dry	1	MS-19	SW-846 6010D	11/3/21	11/4/21 17:28	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P400-0306-102821 | Sampled: 10/28/2021 12:35

Sample ID: 21J1834-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	34.6		% Wt	1		SM 2540G	11/2/21	11/2/21 17:08	DRL
Hexavalent Chromium	ND	2.3	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.8°C	4.6		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P400-0306-102821 | Sampled: 10/28/2021 12:35

Sample ID: 21J1834-06

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	26.8	8.9	mg/kg	1		EPA 6010		11/2/21 18:50	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P401-0003-102821 | Sampled: 10/28/2021 13:30

Sample ID: 21J1834-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 18:21	QNW
Chromium	3.4	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 18:21	QNW
Copper	9.3	1.2	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 18:21	QNW
Iron	3500	29	mg/Kg dry	1		SW-846 6010D	11/2/21	11/4/21 13:21	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P401-0003-102821 | Sampled: 10/28/2021 13:30

Sample ID: 21J1834-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	56.7		% Wt	1		SM 2540G	11/2/21	11/2/21 17:08	DRL
Hexavalent Chromium	ND	2.7	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.7°C	4.7		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P401-0003-102821 | Sampled: 10/28/2021 13:30

Sample ID: 21J1834-07

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	122	6.3	mg/kg	1		EPA 6010		11/2/21 18:54	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P401-0306-102821 | Sampled: 10/28/2021 13:35

Sample ID: 21J1834-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.9	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:30	QNW
Chromium	3.0	0.98	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:30	QNW
Copper	6.0	0.98	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:30	QNW
Iron	4000	24	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:30	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P401-0306-102821 | Sampled: 10/28/2021 13:35

Sample ID: 21J1834-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	66.7		% Wt	1		SM 2540G	11/2/21	11/2/21 17:08	DRL
Hexavalent Chromium	ND	1.2	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @21.2°C	4.6		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P401-0306-102821 | Sampled: 10/28/2021 13:35

Sample ID: 21J1834-08

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	87	7.5	mg/kg	1		EPA 6010		11/2/21 18:58	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P403-0003-102821 | Sampled: 10/28/2021 13:20

Sample ID: 21J1834-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	7.5	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:35	QNW
Chromium	5.4	1.5	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:35	QNW
Copper	8.2	1.5	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:35	QNW
Iron	3900	38	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:35	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P403-0003-102821 | Sampled: 10/28/2021 13:20

Sample ID: 21J1834-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	41.6		% Wt	1		SM 2540G	11/2/21	11/2/21 17:08	DRL
Hexavalent Chromium	ND	3.7	mg/Kg dry	10	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.8°C	4.5		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P403-0003-102821 | Sampled: 10/28/2021 13:20

Sample ID: 21J1834-09

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	94.6	7.5	mg/kg	1		EPA 6010		11/2/21 19:02	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P403-0306-102821 | Sampled: 10/28/2021 13:25

Sample ID: 21J1834-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:51	QNW
Chromium	2.2	1.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:51	QNW
Copper	3.8	1.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:51	QNW
Iron	2600	25	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:51	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P403-0306-102821 | Sampled: 10/28/2021 13:25

Sample ID: 21J1834-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	65.3		% Wt	1		SM 2540G	11/2/21	11/2/21 17:08	DRL
Hexavalent Chromium	ND	1.2	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.5°C	4.8		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P403-0306-102821 | Sampled: 10/28/2021 13:25

Sample ID: 21J1834-10

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	41.1	8.6	mg/kg	1		EPA 6010		11/2/21 19:06	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P406-0003-102821 | Sampled: 10/28/2021 13:30

Sample ID: 21J1834-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	11	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:56	QNW
Chromium	3.8	2.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:56	QNW
Copper	8.1	2.1	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:56	QNW
Iron	4400	54	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 13:56	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P406-0003-102821 | Sampled: 10/28/2021 13:30

Sample ID: 21J1834-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	30.6		% Wt	1	R-07	SM 2540G	10/29/21	11/1/21 9:12	MJH
Hexavalent Chromium	ND	2.6	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	240		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.7°C	4.7		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P406-0003-102821 | Sampled: 10/28/2021 13:30

Sample ID: 21J1834-11

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	101	9.3	mg/kg	1		EPA 6010		11/2/21 19:10	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P406-0306-102821 | Sampled: 10/28/2021 13:35

Sample ID: 21J1834-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	8.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:01	QNW
Chromium	3.8	1.6	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:01	QNW
Copper	6.3	1.6	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:01	QNW
Iron	4500	40	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:01	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P406-0306-102821 | Sampled: 10/28/2021 13:35

Sample ID: 21J1834-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	41.5		% Wt	1	R-07	SM 2540G	10/29/21	11/1/21 9:12	MJH
Hexavalent Chromium	ND	1.9	mg/Kg dry	5	W-06	SW-846 7196A	10/29/21	11/1/21 13:50	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/28/21	10/28/21 22:00	CB2
pH @20.5°C	4.7		pH Units	1		SW-846 9045C	10/28/21	10/28/21 22:00	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1834

Date Received: 10/28/2021

Field Sample #: SC1-N4-SO-P406-0306-102821 | Sampled: 10/28/2021 13:35

Sample ID: 21J1834-12

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	48.2	7.9	mg/kg	1		EPA 6010		11/2/21 19:14	PSR

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1834-11 [SC1-N4-SO-P406-0003-102821]	B293611	10/29/21
21J1834-12 [SC1-N4-SO-P406-0306-102821]	B293611	10/29/21

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1834-01 [SC1-N6-SO-P303-0003-102821]	B293760	11/02/21
21J1834-02 [SC1-N6-SO-P303-0306-102821]	B293760	11/02/21
21J1834-03 [SC1-N6-SO-P306-0003-102821]	B293760	11/02/21
21J1834-04 [SC1-N6-SO-P306-0306-102821]	B293760	11/02/21
21J1834-05 [SC1-N4-SO-P400-0003-102821]	B293760	11/02/21
21J1834-06 [SC1-N4-SO-P400-0306-102821]	B293760	11/02/21
21J1834-07 [SC1-N4-SO-P401-0003-102821]	B293760	11/02/21
21J1834-08 [SC1-N4-SO-P401-0306-102821]	B293760	11/02/21
21J1834-09 [SC1-N4-SO-P403-0003-102821]	B293760	11/02/21
21J1834-10 [SC1-N4-SO-P403-0306-102821]	B293760	11/02/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1834-01 [SC1-N6-SO-P303-0003-102821]	B293532	20.0	10/28/21
21J1834-02 [SC1-N6-SO-P303-0306-102821]	B293532	20.0	10/28/21
21J1834-03 [SC1-N6-SO-P306-0003-102821]	B293532	20.0	10/28/21
21J1834-04 [SC1-N6-SO-P306-0306-102821]	B293532	20.0	10/28/21
21J1834-05 [SC1-N4-SO-P400-0003-102821]	B293532	20.0	10/28/21
21J1834-06 [SC1-N4-SO-P400-0306-102821]	B293532	20.0	10/28/21
21J1834-07 [SC1-N4-SO-P401-0003-102821]	B293532	20.0	10/28/21
21J1834-08 [SC1-N4-SO-P401-0306-102821]	B293532	20.0	10/28/21
21J1834-09 [SC1-N4-SO-P403-0003-102821]	B293532	20.0	10/28/21
21J1834-10 [SC1-N4-SO-P403-0306-102821]	B293532	20.0	10/28/21
21J1834-11 [SC1-N4-SO-P406-0003-102821]	B293532	20.0	10/28/21
21J1834-12 [SC1-N4-SO-P406-0306-102821]	B293532	20.0	10/28/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1834-08 [SC1-N4-SO-P401-0306-102821]	B293798	1.53	50.0	11/02/21
21J1834-09 [SC1-N4-SO-P403-0003-102821]	B293798	1.60	50.0	11/02/21
21J1834-10 [SC1-N4-SO-P403-0306-102821]	B293798	1.54	50.0	11/02/21
21J1834-11 [SC1-N4-SO-P406-0003-102821]	B293798	1.52	50.0	11/02/21
21J1834-12 [SC1-N4-SO-P406-0306-102821]	B293798	1.50	50.0	11/02/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1834-01 [SC1-N6-SO-P303-0003-102821]	B293811	1.53	50.0	11/02/21
21J1834-02 [SC1-N6-SO-P303-0306-102821]	B293811	1.55	50.0	11/02/21
21J1834-03 [SC1-N6-SO-P306-0003-102821]	B293811	1.60	50.0	11/02/21
21J1834-04 [SC1-N6-SO-P306-0306-102821]	B293811	1.52	50.0	11/02/21
21J1834-05 [SC1-N4-SO-P400-0003-102821]	B293811	1.56	50.0	11/02/21

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Sample Extraction Data

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1834-07 [SC1-N4-SO-P401-0003-102821]	B293811	1.52	50.0	11/02/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1834-06 [SC1-N4-SO-P400-0306-102821]	B293887	1.52	50.0	11/03/21

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1834-01 [SC1-N6-SO-P303-0003-102821]	B293556	2.51	100	10/29/21
21J1834-02 [SC1-N6-SO-P303-0306-102821]	B293556	2.56	100	10/29/21
21J1834-03 [SC1-N6-SO-P306-0003-102821]	B293556	2.52	100	10/29/21
21J1834-04 [SC1-N6-SO-P306-0306-102821]	B293556	2.60	100	10/29/21
21J1834-05 [SC1-N4-SO-P400-0003-102821]	B293556	2.57	100	10/29/21
21J1834-06 [SC1-N4-SO-P400-0306-102821]	B293556	2.51	100	10/29/21
21J1834-07 [SC1-N4-SO-P401-0003-102821]	B293556	2.57	100	10/29/21
21J1834-08 [SC1-N4-SO-P401-0306-102821]	B293556	2.54	100	10/29/21
21J1834-09 [SC1-N4-SO-P403-0003-102821]	B293556	2.57	100	10/29/21
21J1834-10 [SC1-N4-SO-P403-0306-102821]	B293556	2.53	100	10/29/21
21J1834-11 [SC1-N4-SO-P406-0003-102821]	B293556	2.55	100	10/29/21
21J1834-12 [SC1-N4-SO-P406-0306-102821]	B293556	2.57	100	10/29/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1834-01 [SC1-N6-SO-P303-0003-102821]	B293531	20.0	10/28/21
21J1834-02 [SC1-N6-SO-P303-0306-102821]	B293531	20.0	10/28/21
21J1834-03 [SC1-N6-SO-P306-0003-102821]	B293531	20.0	10/28/21
21J1834-04 [SC1-N6-SO-P306-0306-102821]	B293531	20.0	10/28/21
21J1834-05 [SC1-N4-SO-P400-0003-102821]	B293531	20.0	10/28/21
21J1834-06 [SC1-N4-SO-P400-0306-102821]	B293531	20.0	10/28/21
21J1834-07 [SC1-N4-SO-P401-0003-102821]	B293531	20.0	10/28/21
21J1834-08 [SC1-N4-SO-P401-0306-102821]	B293531	20.0	10/28/21
21J1834-09 [SC1-N4-SO-P403-0003-102821]	B293531	20.0	10/28/21
21J1834-10 [SC1-N4-SO-P403-0306-102821]	B293531	20.0	10/28/21
21J1834-11 [SC1-N4-SO-P406-0003-102821]	B293531	20.0	10/28/21
21J1834-12 [SC1-N4-SO-P406-0306-102821]	B293531	20.0	10/28/21

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293798 - SW-846 3050B										
Blank (B293798-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	ND	3.2	mg/Kg wet							
Chromium	ND	0.64	mg/Kg wet							
Copper	ND	0.64	mg/Kg wet							
Iron	ND	16	mg/Kg wet							
LCS (B293798-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.9	mg/Kg wet	170		94.3	82.9-117.6			
Chromium	101	2.0	mg/Kg wet	101		100	82.1-117.8			
Copper	159	2.0	mg/Kg wet	149		106	83.9-116.1			
Iron	9000	50	mg/Kg wet	14100		63.8	60-139.7			
LCS Dup (B293798-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.8	mg/Kg wet	170		94.0	82.9-117.6	0.272	30	
Chromium	98.4	2.0	mg/Kg wet	101		97.4	82.1-117.8	2.84	30	
Copper	152	2.0	mg/Kg wet	149		102	83.9-116.1	4.45	30	
Iron	9140	49	mg/Kg wet	14100		64.8	60-139.7	1.54	30	
Batch B293811 - SW-846 3050B										
Blank (B293811-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
LCS (B293811-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	172	10	mg/Kg wet	170		101	82.9-117.6			
Chromium	107	2.0	mg/Kg wet	101		105	82.1-117.8			
Copper	166	2.0	mg/Kg wet	149		111	83.9-116.1			
Iron	10100	50	mg/Kg wet	14100		71.8	60-139.7			
LCS Dup (B293811-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	164	9.6	mg/Kg wet	170		96.3	82.9-117.6	4.70	30	
Chromium	99.9	1.9	mg/Kg wet	101		98.9	82.1-117.8	6.40	30	
Copper	153	1.9	mg/Kg wet	149		103	83.9-116.1	7.70	30	
Iron	10100	48	mg/Kg wet	14100		71.6	60-139.7	0.310	30	
Batch B293887 - SW-846 3050B										
Blank (B293887-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293887 - SW-846 3050B											
LCS (B293887-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Arsenic	162	9.6	mg/Kg wet	170		95.5		82.9-117.6			
Chromium	97.9	1.9	mg/Kg wet	101		97.0		82.1-117.8			
Copper	155	1.9	mg/Kg wet	149		104		83.9-116.1			
Iron	9210	48	mg/Kg wet	14100		65.3		60-139.7			
LCS Dup (B293887-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Arsenic	160	9.1	mg/Kg wet	170		94.3		82.9-117.6	1.27	30	
Chromium	94.8	1.8	mg/Kg wet	101		93.9		82.1-117.8	3.26	30	
Copper	151	1.8	mg/Kg wet	149		101		83.9-116.1	2.78	30	
Iron	9110	45	mg/Kg wet	14100		64.6		60-139.7	1.09	30	
Matrix Spike (B293887-MS1)	**Source: 21J1834-06**			Prepared: 11/03/21 Analyzed: 11/04/21							
Arsenic	42.6	9.2	mg/Kg dry	46.2	ND	92.2		75-125			
Chromium	51.2	1.8	mg/Kg dry	46.2	4.94	100		75-125			
Copper	101	1.8	mg/Kg dry	92.4	8.20	101		75-125			
Iron	5480	46	mg/Kg dry	369	5170	86.0		75-125			
Matrix Spike Dup (B293887-MSD1)	**Source: 21J1834-06**			Prepared: 11/03/21 Analyzed: 11/04/21							
Arsenic	42.1	9.1	mg/Kg dry	45.4	ND	92.7		75-125	1.11	35	
Chromium	50.7	1.8	mg/Kg dry	45.4	4.94	101		75-125	1.00	35	
Copper	101	1.8	mg/Kg dry	90.9	8.20	102		75-125	0.743	35	
Iron	5630	45	mg/Kg dry	363	5170	**129**	*	75-125	2.71	35	MS-19

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293531 - SW-846 9045C											
LCS (B293531-BS1)				Prepared & Analyzed: 10/28/21							
pH	6.02		pH Units	6.00		100		90-110			
LCS (B293531-BS2)				Prepared & Analyzed: 10/28/21							
pH	6.00		pH Units	6.00		100		90-110			
Duplicate (B293531-DUP1)	**Source: 21J1834-10**			Prepared & Analyzed: 10/28/21							
pH	4.8		pH Units		4.8				0.670	10	
Duplicate (B293531-DUP2)	**Source: 21J1834-12**			Prepared & Analyzed: 10/28/21							
pH	4.7		pH Units		4.7				0.600	10	
Batch B293532 - SM2580 A											
Duplicate (B293532-DUP1)	**Source: 21J1834-10**			Prepared & Analyzed: 10/28/21							
Oxidation/Reduction Potential	227		mV		231				1.75	14.4	
Duplicate (B293532-DUP2)	**Source: 21J1834-12**			Prepared & Analyzed: 10/28/21							
Oxidation/Reduction Potential	235		mV		231				1.72	14.4	
Batch B293556 - SW-846 7196A											
Blank (B293556-BLK1)				Prepared: 10/29/21 Analyzed: 11/01/21							
Hexavalent Chromium	ND	0.16	mg/Kg wet								
LCS (B293556-BS1)				Prepared: 10/29/21 Analyzed: 11/01/21							
Hexavalent Chromium	90	4.0	mg/Kg wet	91.9		97.4		80-120			
LCS Dup (B293556-BSD1)				Prepared: 10/29/21 Analyzed: 11/01/21							
Hexavalent Chromium	85	3.8	mg/Kg wet	88.2		96.0		80-120	5.58	20	
Matrix Spike (B293556-MS1)	**Source: 21J1834-01**			Prepared: 10/29/21 Analyzed: 11/01/21							
Hexavalent Chromium	22	3.1	mg/Kg dry	77.1	ND	**28.5**	*	85-115			MS-16
Matrix Spike (B293556-MS2) PDMS	**Source: 21J1834-01**			Prepared: 10/29/21 Analyzed: 11/01/21							
Hexavalent Chromium	55	3.0	mg/Kg dry	75.3	ND	**73.4**	*	85-115			MS-16
Matrix Spike (B293556-MS3) Insoluble MS	**Source: 21J1834-01**			Prepared: 10/29/21 Analyzed: 11/01/21							
Hexavalent Chromium	200	30	mg/Kg dry	1220	ND	**16.2**	*	85-115			MS-16
Matrix Spike Dup (B293556-MSD1)	**Source: 21J1834-01**			Prepared: 10/29/21 Analyzed: 11/01/21							
Hexavalent Chromium	21	3.0	mg/Kg dry	76.2	ND	**27.2**	*	85-115	5.71	35	MS-16

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B293611 - % Solids											
Duplicate (B293611-DUP8)	**Source: 21J1834-11**			Prepared: 10/29/21 Analyzed: 11/01/21							
% Solids	49.2		% Wt		30.6			**46.7**	*	5	R-07
Duplicate (B293611-DUP9)	**Source: 21J1834-12**			Prepared: 10/29/21 Analyzed: 11/01/21							
% Solids	57.6		% Wt		41.5			**32.4**	*	5	R-07

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-16	For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
R-07	Sample and corresponding duplicate results reflect apparent non-homogeneity of sample.
W-06	Elevated method reporting limit due to intense color of sample

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

2131834

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CHAIN OF CUSTODY RECORD

Page 3 of 4

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed: 11/5/2021

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Mabbett & Associates, Inc.
105 Central St., Suite 4100
Stoneham, MA 02180

Telephone #: 781-279-0650
Project Mgr: S. Vetere

Invoice To: Same As Report To

P.O No.: 5948 Quote #: 00102623

Project No: R2021054.000.004
Site Name: SC-1
Location: Carver State: MA
Sampler(s): MD/DWM

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

List Preservative Code below: F | I | I

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other: Level II
State-specific reporting standards

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: TCL+CN As, Cr, Co, Sulfide	Cr 6+	pH, ORP	Check if chlorinated
1	SC1-N6-SO-P303-0003-102821	10/28	1245				1	1		X	X	X	☐
2	SC1-N6-SO-P303-0306-102821		1250				1	1		X	X	X	☐
3	SC1-N6-SO-P306-0003-102821		1230				1	1		X	X	X	☐
4	SC1-N6-SO-P306-0306-102821		1235				1	1		X	X	X	☐
5	SC1-N4-SO-P400-0003-102821		1320				1	1		X	X	X	☐
6	SC1-N4-SO-P400-0306-102821		1325				1	1		X	X	X	☐
7	SC1-N4-SO-P401-0003-102821		1330				1	1		X	X	X	☐
8	SC1-N4-SO-P401-0306-102821		1335				1	1		X	X	X	☐
9	SC1-N4-SO-P403-0003-102821		1320				1	1		X	X	X	☐
10	SC1-N4-SO-P403-0306-102821		1325				1	1		X	X	X	☐

Relinquished by:	Received by:	Date:	Time:
Michael Bloom	Paul Charboneau	10-28-21	1457
Paul Charboneau		10-28-21	1700
	2.1 | 3.5	10.28.21	0:30

Temp °C: Observed | Correction Factor | Corrected | IR ID #

☒ EDD format: Excel
☒ E-mail to: bloom@mabbett.com
vetere@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

210834

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CHAIN OF CUSTODY RECORD

Page 4 of 4

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: 11/5/2021

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Mabbett & Associates Inc
Telephone #:
Project Mgr: Svetere

Invoice To:
P.O No.: 5948 Quote #: 00102223

Project No: R2021054.000.004
Site Name: SC-1
Location: Carver State: MA
Sampler(s):

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= X2= X3=

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Total Asbestos SEM	Cr 6+	pH, ORP
						Containers					Analysis	
11	SC1-N4-SO-P406-0003-102821	10/28	1330		SO		1	1		X	X	X
12	SC1-N4-SO-P406-0306-102821	↓	1335		SO		1	1		X	X	X

List Preservative Code below: I I

Check if chlorinated

QA/QC Reporting Notes:
* additional charges may apply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other: Level IV
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp °C
Michael Rhodes	Paul Chadbourne	10-28-21	1457	Observed
Paul Chadbourne		10-28-21	1700	Correction Factor
	2.1/3.5	10.28.21	6:30	Corrected
				IR ID #

EDD format: Excel
E-mail to: bloom@mabbett.com
vetere@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Nabbutt

Received By MP Date 10/28 Time 1830

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

By Gun # 3 Actual Temp - 2.1 / 3.5

Were samples within Temperature? 2-6°C T By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Cassie + David

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	12
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	12
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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November 5, 2021

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: r2021054.000.004
Laboratory Work Order Number: 21J1965

Enclosed are results of analyses for samples as received by the laboratory on October 29, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1965

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P100-0003-102921	21J1965-01	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P100-0306-102921	21J1965-02	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P101-0003-102921	21J1965-03	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P101-0306-102921	21J1965-04	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P103-0003-102921	21J1965-05	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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Mabbett & Associates
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ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1965

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P103-0306-102921	21J1965-06	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P106-0003-102921	21J1965-07	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P106-0306-102921	21J1965-08	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P200-0003-102921	21J1965-09	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P200-0306-102921	21J1965-10	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1965

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P201-0003-102921	21J1965-11	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P201-0306-102921	21J1965-12	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P203-0003-102921	21J1965-13	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P203-0306-102921	21J1965-14	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P206-0003-102921	21J1965-15	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1965

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P206-0306-102921	21J1965-16	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P300-0003-102921	21J1965-17	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P300-0306-102921	21J1965-18	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P301-0003-102921	21J1965-19	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P301-0306-102921	21J1965-20	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 6010D

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

21J1965-01RE1[SC3-S2-SO-P100-0003-102921], B293936-MS1, B293936-MSD1

SW-846 7196A

Qualifications:

MS-16

For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1965-15[SC3-S2-SO-P206-0003-102921], B293754-MS1, B293754-MS2, B293754-MSD1

W-06

Elevated method reporting limit due to intense color of sample

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1965-01[SC3-S2-SO-P100-0003-102921], 21J1965-02[SC3-S2-SO-P100-0306-102921], 21J1965-03[SC3-S2-SO-P101-0003-102921], 21J1965-04[SC3-S2-SO-P101-0306-102921], 21J1965-05[SC3-S2-SO-P103-0003-102921], 21J1965-06[SC3-S2-SO-P103-0306-102921], 21J1965-07[SC3-S2-SO-P106-0003-102921], 21J1965-08[SC3-S2-SO-P106-0306-102921], 21J1965-09[SC3-S2-SO-P200-0003-102921], 21J1965-10[SC3-S2-SO-P200-0306-102921], 21J1965-11[SC3-S2-SO-P201-0003-102921], 21J1965-12[SC3-S2-SO-P201-0306-102921], 21J1965-13[SC3-S2-SO-P203-0003-102921], 21J1965-14[SC3-S2-SO-P203-0306-102921], 21J1965-15[SC3-S2-SO-P206-0003-102921], 21J1965-16[SC3-S2-SO-P206-0306-102921], 21J1965-17[SC3-S2-SO-P300-0003-102921], 21J1965-18[SC3-S2-SO-P300-0306-102921], 21J1965-19[SC3-S2-SO-P301-0003-102921], 21J1965-20[SC3-S2-SO-P301-0306-102921]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P100-0003-102921 | Sampled: 10/29/2021 09:35

Sample ID: 21J1965-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 12:30	QNW
Chromium	3.4	0.75	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 12:30	QNW
Chromium, Trivalent	3.4		mg/Kg	1		Tri Chrome Calc.	11/3/21	11/5/21 12:30	QNW
Copper	1.8	0.75	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 12:30	QNW
Iron	4300	19	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 12:30	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P100-0003-102921 | Sampled: 10/29/2021 09:35

Sample ID: 21J1965-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.5		% Wt	1		SM 2540G	11/2/21	11/2/21 17:14	DRL
Hexavalent Chromium	ND	0.88	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	240		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.4°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P100-0003-102921
Sampled: 10/29/2021 09:35

Sample ID: 21J1965-01

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	18.8	10	mg/kg	1		EPA 6010		11/3/21 18:48	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P100-0306-102921 | Sampled: 10/29/2021 09:40

Sample ID: 21J1965-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:51	QNW
Chromium	3.6	0.75	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:51	QNW
Chromium, Trivalent	3.6		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:51	QNW
Copper	2.2	0.75	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:51	QNW
Iron	4300	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:51	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P100-0306-102921 | Sampled: 10/29/2021 09:40

Sample ID: 21J1965-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.8		% Wt	1		SM 2540G	11/2/21	11/2/21 17:15	DRL
Hexavalent Chromium	ND	0.90	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	260		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.5°C	4.7		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P100-0306-102921
Sampled: 10/29/2021 09:40

Sample ID: 21J1965-02

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	15.1	9.8	mg/kg	1		EPA 6010		11/3/21 18:52	PAL

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P101-0003-102921
Sampled: 10/29/2021 09:45

Sample ID: 21J1965-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:56	QNW
Chromium	3.6	0.76	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:56	QNW
Chromium, Trivalent	3.6		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:56	QNW
Copper	2.0	0.76	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:56	QNW
Iron	4300	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:56	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P101-0003-102921 | Sampled: 10/29/2021 09:45

Sample ID: 21J1965-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.3		% Wt	1		SM 2540G	11/2/21	11/2/21 17:15	DRL
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	280		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.1°C	4.7		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P101-0003-102921
Sampled: 10/29/2021 09:45

Sample ID: 21J1965-03

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	30.2	8.2	mg/kg	1		EPA 6010		11/3/21 18:56	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P101-0306-102921 | Sampled: 10/29/2021 09:50

Sample ID: 21J1965-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:01	QNW
Chromium	3.3	0.73	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:01	QNW
Chromium, Trivalent	3.3		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 15:01	QNW
Copper	2.1	0.73	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:01	QNW
Iron	4000	18	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:01	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P101-0306-102921 | Sampled: 10/29/2021 09:50

Sample ID: 21J1965-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	11/2/21	11/2/21 17:15	DRL
Hexavalent Chromium	ND	0.89	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	280		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.3°C	4.6		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P101-0306-102921
Sampled: 10/29/2021 09:50

Sample ID: 21J1965-04

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	13.6	8.2	mg/kg	1		EPA 6010		11/3/21 19:00	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P103-0003-102921 | Sampled: 10/29/2021 09:55

Sample ID: 21J1965-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:07	QNW
Chromium	3.5	0.76	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:07	QNW
Chromium, Trivalent	3.5		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 15:07	QNW
Copper	2.0	0.76	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:07	QNW
Iron	4200	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 15:07	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P103-0003-102921 | Sampled: 10/29/2021 09:55

Sample ID: 21J1965-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.1		% Wt	1		SM 2540G	11/2/21	11/2/21 17:15	DRL
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	290		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.3°C	4.7		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P103-0003-102921
Sampled: 10/29/2021 09:55

Sample ID: 21J1965-05

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	16.7	8.5	mg/kg	1		EPA 6010		11/3/21 19:04	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P103-0306-102921 | Sampled: 10/29/2021 10:00

Sample ID: 21J1965-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:39	QNW
Chromium	3.8	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:39	QNW
Chromium, Trivalent	3.8		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 16:39	QNW
Copper	2.1	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:39	QNW
Iron	4600	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:39	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P103-0306-102921 | Sampled: 10/29/2021 10:00

Sample ID: 21J1965-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.6		% Wt	1		SM 2540G	11/2/21	11/2/21 17:15	DRL
Hexavalent Chromium	ND	0.90	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	270		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.4°C	4.7		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P103-0306-102921 | Sampled: 10/29/2021 10:00

Sample ID: 21J1965-06

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	10.2	8.5	mg/kg	1		EPA 6010		11/3/21 19:08	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P106-0003-102921 | Sampled: 10/29/2021 10:05

Sample ID: 21J1965-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:44	QNW
Chromium	4.3	0.73	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:44	QNW
Chromium, Trivalent	4.3		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 16:44	QNW
Copper	3.4	0.73	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:44	QNW
Iron	5700	18	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:44	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P106-0003-102921 | Sampled: 10/29/2021 10:05

Sample ID: 21J1965-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.6		% Wt	1		SM 2540G	11/2/21	11/2/21 17:16	DRL
Hexavalent Chromium	ND	0.90	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	290		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.2°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P106-0003-102921
Sampled: 10/29/2021 10:05

Sample ID: 21J1965-07

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	36.8	9.3	mg/kg	1		EPA 6010		11/3/21 19:12	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P106-0306-102921 | Sampled: 10/29/2021 10:10

Sample ID: 21J1965-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:49	QNW
Chromium	3.4	0.74	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:49	QNW
Chromium, Trivalent	3.4		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 16:49	QNW
Copper	2.0	0.74	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:49	QNW
Iron	4200	18	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:49	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P106-0306-102921 | Sampled: 10/29/2021 10:10

Sample ID: 21J1965-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.0		% Wt	1		SM 2540G	11/2/21	11/2/21 17:16	DRL
Hexavalent Chromium	ND	0.89	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	300		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.2°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P106-0306-102921
Sampled: 10/29/2021 10:10

Sample ID: 21J1965-08

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	10.1	9.3	mg/kg	1		EPA 6010		11/3/21 19:25	PAL

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P200-0003-102921
Sampled: 10/29/2021 10:45

Sample ID: 21J1965-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:54	QNW
Chromium	4.7	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:54	QNW
Chromium, Trivalent	4.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 16:54	QNW
Copper	2.5	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:54	QNW
Iron	5700	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:54	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P200-0003-102921 | Sampled: 10/29/2021 10:45

Sample ID: 21J1965-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:16	DRL
Hexavalent Chromium	ND	0.92	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	290		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.4°C	4.3		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P200-0003-102921
Sampled: 10/29/2021 10:45

Sample ID: 21J1965-09

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	17.4	9.4	mg/kg	1		EPA 6010		11/3/21 19:29	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P200-0306-102921 | Sampled: 10/29/2021 10:50

Sample ID: 21J1965-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:59	QNW
Chromium	4.8	0.76	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:59	QNW
Chromium, Trivalent	4.8		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 16:59	QNW
Copper	2.6	0.76	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:59	QNW
Iron	5800	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 16:59	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P200-0306-102921 | Sampled: 10/29/2021 10:50

Sample ID: 21J1965-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.4		% Wt	1		SM 2540G	11/2/21	11/2/21 17:16	DRL
Hexavalent Chromium	ND	0.90	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	330		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.3°C	4.3		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P200-0306-102921
Sampled: 10/29/2021 10:50

Sample ID: 21J1965-10

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	ND	9.1	mg/kg	1		EPA 6010		11/3/21 19:33	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P201-0003-102921 | Sampled: 10/29/2021 10:55

Sample ID: 21J1965-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:04	QNW
Chromium	4.8	0.78	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:04	QNW
Chromium, Trivalent	4.8		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:04	QNW
Copper	2.5	0.78	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:04	QNW
Iron	5700	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:04	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P201-0003-102921 | Sampled: 10/29/2021 10:55

Sample ID: 21J1965-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.1		% Wt	1		SM 2540G	11/2/21	11/2/21 17:16	DRL
Hexavalent Chromium	ND	0.94	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	280		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21.1°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P201-0003-102921
Sampled: 10/29/2021 10:55

Sample ID: 21J1965-11

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	21.4	9.6	mg/kg	1		EPA 6010		11/3/21 19:37	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P201-0306-102921 | Sampled: 10/29/2021 11:00

Sample ID: 21J1965-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:08	QNW
Chromium	4.9	0.77	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:08	QNW
Chromium, Trivalent	4.9		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:08	QNW
Copper	2.4	0.77	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:08	QNW
Iron	5600	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:08	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P201-0306-102921 | Sampled: 10/29/2021 11:00

Sample ID: 21J1965-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.7		% Wt	1		SM 2540G	11/2/21	11/2/21 17:16	DRL
Hexavalent Chromium	ND	0.92	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	300		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21°C	4.2		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P201-0306-102921
Sampled: 10/29/2021 11:00

Sample ID: 21J1965-12

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	11.5	8.6	mg/kg	1		EPA 6010		11/3/21 19:41	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P203-0003-102921 | Sampled: 10/29/2021 11:00

Sample ID: 21J1965-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:25	QNW
Chromium	4.7	0.79	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:25	QNW
Chromium, Trivalent	4.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:25	QNW
Copper	2.4	0.79	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:25	QNW
Iron	5600	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:25	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P203-0003-102921 | Sampled: 10/29/2021 11:00

Sample ID: 21J1965-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3		% Wt	1		SM 2540G	11/2/21	11/2/21 17:17	DRL
Hexavalent Chromium	ND	0.92	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	310		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P203-0003-102921
Sampled: 10/29/2021 11:00

Sample ID: 21J1965-13

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	27.6	9.8	mg/kg	1		EPA 6010		11/3/21 19:45	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P203-0306-102921 | Sampled: 10/29/2021 10:55

Sample ID: 21J1965-14

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:30	QNW
Chromium	4.7	0.74	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:30	QNW
Chromium, Trivalent	4.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:30	QNW
Copper	2.5	0.74	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:30	QNW
Iron	5600	18	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:30	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P203-0306-102921 | Sampled: 10/29/2021 10:55

Sample ID: 21J1965-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.3		% Wt	1		SM 2540G	11/2/21	11/2/21 17:17	DRL
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	310		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @20.8°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P203-0306-102921 | Sampled: 10/29/2021 10:55

Sample ID: 21J1965-14

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	17.1	10	mg/kg	1		EPA 6010		11/3/21 19:49	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P206-0003-102921 | Sampled: 10/29/2021 10:50

Sample ID: 21J1965-15

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.1	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:35	QNW
Chromium	4.7	0.82	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:35	QNW
Chromium, Trivalent	4.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:35	QNW
Copper	2.3	0.82	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:35	QNW
Iron	5500	21	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:35	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P206-0003-102921 | Sampled: 10/29/2021 10:50

Sample ID: 21J1965-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.0		% Wt	1		SM 2540G	11/1/21	11/2/21 14:53	AP
Hexavalent Chromium	ND	0.98	mg/Kg dry	5	MS-16, W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	320		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P206-0003-102921 | Sampled: 10/29/2021 10:50

Sample ID: 21J1965-15

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	19.4	10	mg/kg	1		EPA 6010		11/3/21 20:01	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P206-0306-102921 | Sampled: 10/29/2021 10:45

Sample ID: 21J1965-16

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:40	QNW
Chromium	4.6	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:40	QNW
Chromium, Trivalent	4.6		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:40	QNW
Copper	2.4	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:40	QNW
Iron	5500	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:40	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P206-0306-102921 | Sampled: 10/29/2021 10:45

Sample ID: 21J1965-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.5		% Wt	1		SM 2540G	11/1/21	11/2/21 14:54	AP
Hexavalent Chromium	ND	0.93	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	310		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @21°C	4.3		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P206-0306-102921
Sampled: 10/29/2021 10:45

Sample ID: 21J1965-16

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	17.6	9.3	mg/kg	1		EPA 6010		11/3/21 20:25	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P300-0003-102921 | Sampled: 10/29/2021 11:35

Sample ID: 21J1965-17

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:45	QNW
Chromium	3.0	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:45	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:45	QNW
Copper	1.6	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:45	QNW
Iron	4000	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:45	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P300-0003-102921 | Sampled: 10/29/2021 11:35

Sample ID: 21J1965-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	11/1/21	11/2/21 14:54	AP
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	310		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @20.7°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P300-0003-102921
Sampled: 10/29/2021 11:35

Sample ID: 21J1965-17

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	ND	9.6	mg/kg	1		EPA 6010		11/3/21 20:29	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P300-0306-102921 | Sampled: 10/29/2021 11:40

Sample ID: 21J1965-18

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:50	QNW
Chromium	2.9	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:50	QNW
Chromium, Trivalent	2.9		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:50	QNW
Copper	1.6	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:50	QNW
Iron	3800	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:50	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P300-0306-102921 | Sampled: 10/29/2021 11:40

Sample ID: 21J1965-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.7		% Wt	1		SM 2540G	11/1/21	11/2/21 14:54	AP
Hexavalent Chromium	ND	0.89	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	320		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @20.8°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P300-0306-102921
Sampled: 10/29/2021 11:40

Sample ID: 21J1965-18

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	20.6	8.6	mg/kg	1		EPA 6010		11/3/21 20:33	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P301-0003-102921 | Sampled: 10/29/2021 11:45

Sample ID: 21J1965-19

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:54	QNW
Chromium	2.9	0.74	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:54	QNW
Chromium, Trivalent	2.9		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:54	QNW
Copper	1.5	0.74	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:54	QNW
Iron	3800	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:54	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P301-0003-102921 | Sampled: 10/29/2021 11:45

Sample ID: 21J1965-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.9		% Wt	1		SM 2540G	11/1/21	11/2/21 14:54	AP
Hexavalent Chromium	ND	0.89	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	300		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @20.5°C	4.3		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P301-0003-102921
Sampled: 10/29/2021 11:45

Sample ID: 21J1965-19

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	10	9.4	mg/kg	1		EPA 6010		11/3/21 20:37	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P301-0306-102921 | Sampled: 10/29/2021 11:50

Sample ID: 21J1965-20

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:59	QNW
Chromium	3.0	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:59	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 17:59	QNW
Copper	1.8	0.75	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:59	QNW
Iron	3900	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 17:59	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P301-0306-102921 | Sampled: 10/29/2021 11:50

Sample ID: 21J1965-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.3		% Wt	1		SM 2540G	11/1/21	11/2/21 14:55	AP
Hexavalent Chromium	ND	0.90	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	310		mV	1		SM2580 A	10/29/21	10/29/21 22:05	CB2
pH @20.2°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 22:05	CB2

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1965

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P301-0306-102921
Sampled: 10/29/2021 11:50

Sample ID: 21J1965-20

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	ND	8.8	mg/kg	1		EPA 6010		11/3/21 20:42	PAL

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1965-15 [SC3-S2-SO-P206-0003-102921]	B293689	11/01/21
21J1965-16 [SC3-S2-SO-P206-0306-102921]	B293689	11/01/21
21J1965-17 [SC3-S2-SO-P300-0003-102921]	B293689	11/01/21
21J1965-18 [SC3-S2-SO-P300-0306-102921]	B293689	11/01/21
21J1965-19 [SC3-S2-SO-P301-0003-102921]	B293689	11/01/21
21J1965-20 [SC3-S2-SO-P301-0306-102921]	B293689	11/01/21

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1965-01 [SC3-S2-SO-P100-0003-102921]	B293760	11/02/21
21J1965-02 [SC3-S2-SO-P100-0306-102921]	B293760	11/02/21
21J1965-03 [SC3-S2-SO-P101-0003-102921]	B293760	11/02/21
21J1965-04 [SC3-S2-SO-P101-0306-102921]	B293760	11/02/21
21J1965-05 [SC3-S2-SO-P103-0003-102921]	B293760	11/02/21
21J1965-06 [SC3-S2-SO-P103-0306-102921]	B293760	11/02/21
21J1965-07 [SC3-S2-SO-P106-0003-102921]	B293760	11/02/21
21J1965-08 [SC3-S2-SO-P106-0306-102921]	B293760	11/02/21
21J1965-09 [SC3-S2-SO-P200-0003-102921]	B293760	11/02/21
21J1965-10 [SC3-S2-SO-P200-0306-102921]	B293760	11/02/21
21J1965-11 [SC3-S2-SO-P201-0003-102921]	B293760	11/02/21
21J1965-12 [SC3-S2-SO-P201-0306-102921]	B293760	11/02/21
21J1965-13 [SC3-S2-SO-P203-0003-102921]	B293760	11/02/21
21J1965-14 [SC3-S2-SO-P203-0306-102921]	B293760	11/02/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1965-01 [SC3-S2-SO-P100-0003-102921]	B293624	20.0	10/29/21
21J1965-02 [SC3-S2-SO-P100-0306-102921]	B293624	20.0	10/29/21
21J1965-03 [SC3-S2-SO-P101-0003-102921]	B293624	20.0	10/29/21
21J1965-04 [SC3-S2-SO-P101-0306-102921]	B293624	20.0	10/29/21
21J1965-05 [SC3-S2-SO-P103-0003-102921]	B293624	20.0	10/29/21
21J1965-06 [SC3-S2-SO-P103-0306-102921]	B293624	20.0	10/29/21
21J1965-07 [SC3-S2-SO-P106-0003-102921]	B293624	20.0	10/29/21
21J1965-08 [SC3-S2-SO-P106-0306-102921]	B293624	20.0	10/29/21
21J1965-09 [SC3-S2-SO-P200-0003-102921]	B293624	20.0	10/29/21
21J1965-10 [SC3-S2-SO-P200-0306-102921]	B293624	20.0	10/29/21
21J1965-11 [SC3-S2-SO-P201-0003-102921]	B293624	20.0	10/29/21
21J1965-12 [SC3-S2-SO-P201-0306-102921]	B293624	20.0	10/29/21
21J1965-13 [SC3-S2-SO-P203-0003-102921]	B293624	20.0	10/29/21
21J1965-14 [SC3-S2-SO-P203-0306-102921]	B293624	20.0	10/29/21
21J1965-15 [SC3-S2-SO-P206-0003-102921]	B293624	20.0	10/29/21
21J1965-16 [SC3-S2-SO-P206-0306-102921]	B293624	20.0	10/29/21
21J1965-17 [SC3-S2-SO-P300-0003-102921]	B293624	20.0	10/29/21
21J1965-18 [SC3-S2-SO-P300-0306-102921]	B293624	20.0	10/29/21
21J1965-19 [SC3-S2-SO-P301-0003-102921]	B293624	20.0	10/29/21
21J1965-20 [SC3-S2-SO-P301-0306-102921]	B293624	20.0	10/29/21

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Sample Extraction Data

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1965-06 [SC3-S2-SO-P103-0306-102921]	B293738	1.52	50.0	11/01/21
21J1965-07 [SC3-S2-SO-P106-0003-102921]	B293738	1.60	50.0	11/01/21
21J1965-08 [SC3-S2-SO-P106-0306-102921]	B293738	1.53	50.0	11/01/21
21J1965-09 [SC3-S2-SO-P200-0003-102921]	B293738	1.56	50.0	11/01/21
21J1965-10 [SC3-S2-SO-P200-0306-102921]	B293738	1.54	50.0	11/01/21
21J1965-11 [SC3-S2-SO-P201-0003-102921]	B293738	1.51	50.0	11/01/21
21J1965-12 [SC3-S2-SO-P201-0306-102921]	B293738	1.51	50.0	11/01/21
21J1965-13 [SC3-S2-SO-P203-0003-102921]	B293738	1.51	50.0	11/01/21
21J1965-14 [SC3-S2-SO-P203-0306-102921]	B293738	1.58	50.0	11/01/21
21J1965-15 [SC3-S2-SO-P206-0003-102921]	B293738	1.50	50.0	11/01/21
21J1965-16 [SC3-S2-SO-P206-0306-102921]	B293738	1.56	50.0	11/01/21
21J1965-17 [SC3-S2-SO-P300-0003-102921]	B293738	1.53	50.0	11/01/21
21J1965-18 [SC3-S2-SO-P300-0306-102921]	B293738	1.51	50.0	11/01/21
21J1965-19 [SC3-S2-SO-P301-0003-102921]	B293738	1.52	50.0	11/01/21
21J1965-20 [SC3-S2-SO-P301-0306-102921]	B293738	1.51	50.0	11/01/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1965-02 [SC3-S2-SO-P100-0306-102921]	B293798	1.51	50.0	11/02/21
21J1965-03 [SC3-S2-SO-P101-0003-102921]	B293798	1.51	50.0	11/02/21
21J1965-04 [SC3-S2-SO-P101-0306-102921]	B293798	1.56	50.0	11/02/21
21J1965-05 [SC3-S2-SO-P103-0003-102921]	B293798	1.51	50.0	11/02/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1965-01RE1 [SC3-S2-SO-P100-0003-102921]	B293936	1.52	50.0	11/03/21

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1965-01 [SC3-S2-SO-P100-0003-102921]	B293674	2.58	100	11/01/21
21J1965-02 [SC3-S2-SO-P100-0306-102921]	B293674	2.52	100	11/01/21
21J1965-03 [SC3-S2-SO-P101-0003-102921]	B293674	2.50	100	11/01/21
21J1965-04 [SC3-S2-SO-P101-0306-102921]	B293674	2.59	100	11/01/21
21J1965-05 [SC3-S2-SO-P103-0003-102921]	B293674	2.51	100	11/01/21
21J1965-06 [SC3-S2-SO-P103-0306-102921]	B293674	2.54	100	11/01/21
21J1965-07 [SC3-S2-SO-P106-0003-102921]	B293674	2.59	100	11/01/21
21J1965-08 [SC3-S2-SO-P106-0306-102921]	B293674	2.52	100	11/01/21
21J1965-09 [SC3-S2-SO-P200-0003-102921]	B293674	2.55	100	11/01/21
21J1965-10 [SC3-S2-SO-P200-0306-102921]	B293674	2.60	100	11/01/21
21J1965-11 [SC3-S2-SO-P201-0003-102921]	B293674	2.51	100	11/01/21
21J1965-12 [SC3-S2-SO-P201-0306-102921]	B293674	2.54	100	11/01/21
21J1965-13 [SC3-S2-SO-P203-0003-102921]	B293674	2.58	100	11/01/21
21J1965-14 [SC3-S2-SO-P203-0306-102921]	B293674	2.56	100	11/01/21

Prep Method: SW-846 7196A **Analytical Method: SW-846 7196A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date

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Sample Extraction Data

Prep Method: SW-846 7196A **Analytical Method: SW-846 7196A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1965-15 [SC3-S2-SO-P206-0003-102921]	B293754	2.53	100	11/02/21
21J1965-16 [SC3-S2-SO-P206-0306-102921]	B293754	2.53	100	11/02/21
21J1965-17 [SC3-S2-SO-P300-0003-102921]	B293754	2.53	100	11/02/21
21J1965-18 [SC3-S2-SO-P300-0306-102921]	B293754	2.52	100	11/02/21
21J1965-19 [SC3-S2-SO-P301-0003-102921]	B293754	2.52	100	11/02/21
21J1965-20 [SC3-S2-SO-P301-0306-102921]	B293754	2.51	100	11/02/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1965-01 [SC3-S2-SO-P100-0003-102921]	B293623	20.0	10/29/21
21J1965-02 [SC3-S2-SO-P100-0306-102921]	B293623	20.0	10/29/21
21J1965-03 [SC3-S2-SO-P101-0003-102921]	B293623	20.0	10/29/21
21J1965-04 [SC3-S2-SO-P101-0306-102921]	B293623	20.0	10/29/21
21J1965-05 [SC3-S2-SO-P103-0003-102921]	B293623	20.0	10/29/21
21J1965-06 [SC3-S2-SO-P103-0306-102921]	B293623	20.0	10/29/21
21J1965-07 [SC3-S2-SO-P106-0003-102921]	B293623	20.0	10/29/21
21J1965-08 [SC3-S2-SO-P106-0306-102921]	B293623	20.0	10/29/21
21J1965-09 [SC3-S2-SO-P200-0003-102921]	B293623	20.0	10/29/21
21J1965-10 [SC3-S2-SO-P200-0306-102921]	B293623	20.0	10/29/21
21J1965-11 [SC3-S2-SO-P201-0003-102921]	B293623	20.0	10/29/21
21J1965-12 [SC3-S2-SO-P201-0306-102921]	B293623	20.0	10/29/21
21J1965-13 [SC3-S2-SO-P203-0003-102921]	B293623	20.0	10/29/21
21J1965-14 [SC3-S2-SO-P203-0306-102921]	B293623	20.0	10/29/21
21J1965-15 [SC3-S2-SO-P206-0003-102921]	B293623	20.0	10/29/21
21J1965-16 [SC3-S2-SO-P206-0306-102921]	B293623	20.0	10/29/21
21J1965-17 [SC3-S2-SO-P300-0003-102921]	B293623	20.0	10/29/21
21J1965-18 [SC3-S2-SO-P300-0306-102921]	B293623	20.0	10/29/21
21J1965-19 [SC3-S2-SO-P301-0003-102921]	B293623	20.0	10/29/21
21J1965-20 [SC3-S2-SO-P301-0306-102921]	B293623	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1965-06 [SC3-S2-SO-P103-0306-102921]	B293738	1.52	11/01/21
21J1965-07 [SC3-S2-SO-P106-0003-102921]	B293738	1.60	11/01/21
21J1965-08 [SC3-S2-SO-P106-0306-102921]	B293738	1.53	11/01/21
21J1965-09 [SC3-S2-SO-P200-0003-102921]	B293738	1.56	11/01/21
21J1965-10 [SC3-S2-SO-P200-0306-102921]	B293738	1.54	11/01/21
21J1965-11 [SC3-S2-SO-P201-0003-102921]	B293738	1.51	11/01/21
21J1965-12 [SC3-S2-SO-P201-0306-102921]	B293738	1.51	11/01/21
21J1965-13 [SC3-S2-SO-P203-0003-102921]	B293738	1.51	11/01/21
21J1965-14 [SC3-S2-SO-P203-0306-102921]	B293738	1.58	11/01/21
21J1965-15 [SC3-S2-SO-P206-0003-102921]	B293738	1.50	11/01/21
21J1965-16 [SC3-S2-SO-P206-0306-102921]	B293738	1.56	11/01/21
21J1965-17 [SC3-S2-SO-P300-0003-102921]	B293738	1.53	11/01/21
21J1965-18 [SC3-S2-SO-P300-0306-102921]	B293738	1.51	11/01/21
21J1965-19 [SC3-S2-SO-P301-0003-102921]	B293738	1.52	11/01/21
21J1965-20 [SC3-S2-SO-P301-0306-102921]	B293738	1.51	11/01/21

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Sample Extraction Data

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1965-02 [SC3-S2-SO-P100-0306-102921]	B293798	1.51	11/02/21
21J1965-03 [SC3-S2-SO-P101-0003-102921]	B293798	1.51	11/02/21
21J1965-04 [SC3-S2-SO-P101-0306-102921]	B293798	1.56	11/02/21
21J1965-05 [SC3-S2-SO-P103-0003-102921]	B293798	1.51	11/02/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1965-01RE1 [SC3-S2-SO-P100-0003-102921]	B293936	1.52	11/03/21

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293738 - SW-846 3050B										
Blank (B293738-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.66	mg/Kg wet							
Copper	ND	0.66	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
LCS (B293738-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	156	9.9	mg/Kg wet	170		91.6	82.9-117.6			
Chromium	98.4	2.0	mg/Kg wet	101		97.4	82.1-117.8			
Copper	153	2.0	mg/Kg wet	149		103	83.9-116.1			
Iron	10300	50	mg/Kg wet	14100		72.9	60-139.7			
LCS Dup (B293738-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	151	9.9	mg/Kg wet	170		88.9	82.9-117.6	2.94	30	
Chromium	95.6	2.0	mg/Kg wet	101		94.7	82.1-117.8	2.84	30	
Copper	146	2.0	mg/Kg wet	149		98.0	83.9-116.1	4.78	30	
Iron	9620	50	mg/Kg wet	14100		68.2	60-139.7	6.68	30	
Batch B293798 - SW-846 3050B										
Blank (B293798-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	ND	3.2	mg/Kg wet							
Chromium	ND	0.64	mg/Kg wet							
Copper	ND	0.64	mg/Kg wet							
Iron	ND	16	mg/Kg wet							
LCS (B293798-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.9	mg/Kg wet	170		94.3	82.9-117.6			
Chromium	101	2.0	mg/Kg wet	101		100	82.1-117.8			
Copper	159	2.0	mg/Kg wet	149		106	83.9-116.1			
Iron	9000	50	mg/Kg wet	14100		63.8	60-139.7			
LCS Dup (B293798-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.8	mg/Kg wet	170		94.0	82.9-117.6	0.272	30	
Chromium	98.4	2.0	mg/Kg wet	101		97.4	82.1-117.8	2.84	30	
Copper	152	2.0	mg/Kg wet	149		102	83.9-116.1	4.45	30	
Iron	9140	49	mg/Kg wet	14100		64.8	60-139.7	1.54	30	
Batch B293936 - SW-846 3050B										
Blank (B293936-BLK1)				Prepared: 11/03/21 Analyzed: 11/05/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293936 - SW-846 3050B											
LCS (B293936-BS1)				Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	144	9.9	mg/Kg wet	170		84.8		82.9-117.6			
Chromium	92.0	2.0	mg/Kg wet	101		91.0		82.1-117.8			
Copper	137	2.0	mg/Kg wet	149		92.2		83.9-116.1			
Iron	8680	50	mg/Kg wet	14100		61.6		60-139.7			
LCS Dup (B293936-BSD1)				Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	142	9.7	mg/Kg wet	170		83.7		82.9-117.6	1.26	30	
Chromium	91.3	1.9	mg/Kg wet	101		90.4		82.1-117.8	0.659	30	
Copper	138	1.9	mg/Kg wet	149		92.5		83.9-116.1	0.256	30	
Iron	8990	49	mg/Kg wet	14100		63.8		60-139.7	3.51	30	
Matrix Spike (B293936-MS1)		**Source: 21J1965-01RE1**		Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	18.3	3.8	mg/Kg dry	18.9	ND	96.8		75-125			
Chromium	23.2	0.76	mg/Kg dry	18.9	3.42	104		75-125			
Copper	40.5	0.76	mg/Kg dry	37.8	1.76	102		75-125			
Iron	5100	19	mg/Kg dry	151	4320	**516**	*	75-125			
Matrix Spike Dup (B293936-MSD1)		**Source: 21J1965-01RE1**		Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	16.5	3.6	mg/Kg dry	18.1	ND	91.6		75-125	10.1	35	
Chromium	21.7	0.72	mg/Kg dry	18.1	3.42	101		75-125	6.71	35	
Copper	37.0	0.72	mg/Kg dry	36.1	1.76	97.6		75-125	9.01	35	
Iron	5430	18	mg/Kg dry	144	4320	**770**	*	75-125	6.31	35	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293623 - SW-846 9045C										
LCS (B293623-BS1)				Prepared & Analyzed: 10/29/21						
pH	5.99		pH Units	6.00		99.9	90-110			
LCS (B293623-BS2)				Prepared & Analyzed: 10/29/21						
pH	5.96		pH Units	6.00		99.4	90-110			
Duplicate (B293623-DUP1)	**Source: 21J1965-10**			Prepared & Analyzed: 10/29/21						
pH	4.3		pH Units		4.3			0.857	10	
Duplicate (B293623-DUP2)	**Source: 21J1965-20**			Prepared & Analyzed: 10/29/21						
pH	4.4		pH Units		4.5			1.80	10	
Batch B293624 - SM2580 A										
Duplicate (B293624-DUP1)	**Source: 21J1965-10**			Prepared & Analyzed: 10/29/21						
Oxidation/Reduction Potential	323		mV		327			1.23	14.4	
Duplicate (B293624-DUP2)	**Source: 21J1965-20**			Prepared & Analyzed: 10/29/21						
Oxidation/Reduction Potential	308		mV		312			1.29	14.4	
Batch B293674 - SW-846 7196A										
Blank (B293674-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B293674-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	95	4.0	mg/Kg wet	92.4		103	80-120			
LCS Dup (B293674-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	96	3.7	mg/Kg wet	85.3		112	80-120	1.07	20	
Batch B293754 - SW-846 7196A										
Blank (B293754-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B293754-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Hexavalent Chromium	82	3.8	mg/Kg wet	88.6		92.7	80-120			
LCS Dup (B293754-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Hexavalent Chromium	94	4.0	mg/Kg wet	91.6		103	80-120	13.4	20	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B293754 - SW-846 7196A												
Matrix Spike (B293754-MS1)	**Source: 21J1965-15**			Prepared: 11/02/21 Analyzed: 11/03/21								
Hexavalent Chromium	14	0.98	mg/Kg dry	49.2	ND	**27.9**	*	85-115				MS-16
Matrix Spike (B293754-MS2)	**Source: 21J1965-15**			Prepared: 11/02/21 Analyzed: 11/03/21								
Hexavalent Chromium	30	1.9	mg/Kg dry	48.3	ND	**62.3**	*	85-115				MS-16
Matrix Spike (B293754-MS3)	**Source: 21J1965-15**			Prepared: 11/02/21 Analyzed: 11/03/21								
Hexavalent Chromium	720	19	mg/Kg dry	775	ND	92.8		85-115				
Matrix Spike Dup (B293754-MSD1)	**Source: 21J1965-15**			Prepared: 11/02/21 Analyzed: 11/03/21								
Hexavalent Chromium	7.1	0.96	mg/Kg dry	48.0	ND	**14.8**	*	85-115	**63.5**	*	35	MS-16
Batch B293760 - % Solids												
Duplicate (B293760-DUP1)	**Source: 21J1965-07**			Prepared & Analyzed: 11/02/21								
% Solids	85.1		% Wt		85.6				0.512		5	
Duplicate (B293760-DUP2)	**Source: 21J1965-08**			Prepared & Analyzed: 11/02/21								
% Solids	89.4		% Wt		89.0				0.496		5	
Duplicate (B293760-DUP3)	**Source: 21J1965-09**			Prepared & Analyzed: 11/02/21								
% Solids	84.0		% Wt		84.9				1.04		5	
Duplicate (B293760-DUP4)	**Source: 21J1965-10**			Prepared & Analyzed: 11/02/21								
% Solids	85.5		% Wt		85.4				0.101		5	
Duplicate (B293760-DUP5)	**Source: 21J1965-11**			Prepared & Analyzed: 11/02/21								
% Solids	84.6		% Wt		85.1				0.598		5	
Duplicate (B293760-DUP6)	**Source: 21J1965-12**			Prepared & Analyzed: 11/02/21								
% Solids	85.4		% Wt		85.7				0.333		5	
Duplicate (B293760-DUP7)	**Source: 21J1965-13**			Prepared & Analyzed: 11/02/21								
% Solids	83.2		% Wt		84.3				1.25		5	
Duplicate (B293760-DUP8)	**Source: 21J1965-14**			Prepared & Analyzed: 11/02/21								
% Solids	85.7		% Wt		85.3				0.464		5	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-16	For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
W-06	Elevated method reporting limit due to intense color of sample

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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Fax: 413-525-6405
Email: info@contestlabs.com
http://www.contestlabs.com
39 Spruce Street
East Longmeadow, MA 01028

2119165

CHAIN OF CUSTODY RECORD

Company Name: Mabbett
Address: 105 Central St Stoneham
Phone: 781-275-6050
Project Name: SC-3
Project Location: Carver MA
Project Number: R2021054.000.004
Project Manager: S Vetere
Con-Test Quote Name/Number: 00102623
Invoice Recipient:
Sampled By: MLB/CW

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 11-5-2021

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To: vetere@mabbett.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	# of Containers	Preservation Code	Container Code	Cr 6+, Cr 3+	Total As, Cr, Cu, S, Fe	pH, ORP
01	SC3-S2-SO-P100-0003-102921	10/29	935			SO		2	I	A	X	X	X
02	SC3-S2-SO-P100-0306-102921		940										
03	SC3-S2-SO-P101-0003-102921		945										
04	SC3-S2-SO-P101-0306-102921		950										
05	SC3-S2-SO-P103-0003-102921		955										
06	SC3-S2-SO-P103-0306-102921		1000										
07	SC3-S2-SO-P106-0003-102921		1005										
08	SC3-S2-SO-P106-0306-102921		1010										
09	SC3-S2-SO-P200-0003-102921		1015										
10	SC3-S2-SO-P200-0306-102921	↓	1050			↓					↓	↓	↓

ANALYSIS REQUESTED

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define) plastic bag

Comments:
MCP level 2 data package

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
Cway	10/29 1600
Received by: (signature) Paul Chastenay	10-29-21 1615
Relinquished by: (signature) Paul Chastenay	10-29-21 1915
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
RA
CT
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

5.4, 2.4, 2.9
4.2°C
10/29/21 2035

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Email: info@contestlabs.com

2119165

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Mabbett
Address: 105 central St Stoneham MA
Phone: 781-275-6050
Project Name: SC-3
Project Location: Carver Ma
Project Number: R2021054.000.004
Project Manager: S Vetere
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: CW/MLB

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 11-5-2021

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To: vetere@mabbett.com
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	GW1, Cr37	Total As, Cr, Cu, Si, Fe	pH, ORP
11	SC3-S2-SO-P201-0003-102921	10/29	1055			S		X	X	X
12	SC3-S2-SO-P201-0306-102921		1100							
13	SC3-S2-SO-P203-0003-102921		1100							
14	SC3-S2-SO-P203-0306-102921		1055							
15	SC3-S2-SO-P206-0003-102921		1050							
16	SC3-S2-SO-P206-0306-102921		1045							
17	SC3-S2-SO-P300-0003-102921		1135							
18	SC3-S2-SO-P300-0306-102921		1140							
19	SC3-S2-SO-P301-0003-102921		1145							
20	SC3-S2-SO-P301-0306-102921		1150							

Comments:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
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N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define) plastic bag

# of Containers	2										
[2] Preservation Code	I										
[3] Container Code	A	O	O								

Relinquished by: (signature)	Date/Time:
CWM	10-29 1600
Received by: (signature) Paul Chastenay	Date/Time: 10-29-21 1615
Relinquished by: (signature) Paul Chastenay	Date/Time: 10-29-21 19
Received by: (signature)	Date/Time: 19:15
Relinquished by: (signature)	Date/Time: 2035
Received by: (signature) 5.4, 2.7, 2.9	Date/Time: 10/29/21 2035

Detection Limit Requirements
MA
MCP
Other:

Special Requirements
☐ MA MCP Required
☐ MCP Certification Form Required
☐ CT RCP Required
☐ RCP Certification Form Required
☐ MA State DW Required
PWSID #

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Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client McDonald **Received By** BLF Date 10/29/21 Time 2035

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____ Direct from Sampling _____ Ambient _____ Melted Ice _____

By Gun # 3 Actual Temp -5.4, 2.4, 2.9, 4.2 C

Were samples within Temperature? 2-6°C T By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Cassie

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid NA Base NA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	20
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag	20	Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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November 5, 2021

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: r2021054.000.004
Laboratory Work Order Number: 21J1966

Enclosed are results of analyses for samples as received by the laboratory on October 29, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1966

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P303-0003-102921	21J1966-01	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P303-0306-102921	21J1966-02	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P306-0003-102921	21J1966-03	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-S2-SO-P306-0306-102921	21J1966-04	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N3-SO-P400-0003-102921	21J1966-05	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1966

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-N3-SO-P400-0306-102921	21J1966-06	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N3-SO-P401-0003-102921	21J1966-07	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N3-SO-P401-0306-102921	21J1966-08	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N3-SO-P403-0003-102921	21J1966-09	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N3-SO-P403-0306-102921	21J1966-10	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1966

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-N3-SO-P406-0003-102921	21J1966-11	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N3-SO-P406-0306-102921	21J1966-12	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-M1-SO-P500-0003-102921	21J1966-13	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-M1-SO-P500-0306-102921	21J1966-14	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-M1-SO-P501-0003-102921	21J1966-15	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1966

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-M1-SO-P501-0306-102921	21J1966-16	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-M1-SO-P503-0003-102921	21J1966-17	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-M1-SO-P503-0306-102921	21J1966-18	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-M1-SO-P506-0003-102921	21J1966-19	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-M1-SO-P506-0306-102921	21J1966-20	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1966

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-N1-SO-CTLP-0003-102921	21J1966-21	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N1-SO-CTLP-0306-102921	21J1966-22	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N4-SO-CTLP-0003-102921	21J1966-23	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-N4-SO-CTLP-0306-102921	21J1966-24	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 6010D

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

21J1966-23RE1[SC3-N4-SO-CTLP-0003-102921], B293936-MS2, B293936-MSD2

SW-846 7196A

Qualifications:

MS-16

For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1966-15[SC3-M1-SO-P501-0003-102921], B293852-MS1, B293852-MS2, B293852-MS3, B293852-MSD1

W-06

Elevated method reporting limit due to intense color of sample

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1966-01[SC3-S2-SO-P303-0003-102921], 21J1966-02[SC3-S2-SO-P303-0306-102921], 21J1966-03[SC3-S2-SO-P306-0003-102921], 21J1966-04[SC3-S2-SO-P306-0306-102921], 21J1966-05[SC3-N3-SO-P400-0003-102921], 21J1966-06[SC3-N3-SO-P400-0306-102921], 21J1966-07[SC3-N3-SO-P401-0003-102921], 21J1966-08[SC3-N3-SO-P401-0306-102921], 21J1966-09[SC3-N3-SO-P403-0003-102921], 21J1966-10[SC3-N3-SO-P403-0306-102921], 21J1966-11[SC3-N3-SO-P406-0003-102921], 21J1966-12[SC3-N3-SO-P406-0306-102921], 21J1966-13[SC3-M1-SO-P500-0003-102921], 21J1966-14[SC3-M1-SO-P500-0306-102921], 21J1966-15[SC3-M1-SO-P501-0003-102921], 21J1966-16[SC3-M1-SO-P501-0306-102921], 21J1966-17[SC3-M1-SO-P503-0003-102921], 21J1966-18[SC3-M1-SO-P503-0306-102921], 21J1966-19[SC3-M1-SO-P506-0003-102921], 21J1966-20[SC3-M1-SO-P506-0306-102921], 21J1966-21[SC3-N1-SO-CTLP-0003-102921], 21J1966-22[SC3-N1-SO-CTLP-0306-102921], 21J1966-23[SC3-N4-SO-CTLP-0003-102921], 21J1966-24[SC3-N4-SO-CTLP-0306-102921]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P303-0003-102921 | Sampled: 10/29/2021 11:55

Sample ID: 21J1966-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:25	QNW
Chromium	3.0	0.76	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:25	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 19:25	QNW
Copper	1.7	0.76	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:25	QNW
Iron	3900	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:25	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P303-0003-102921 | Sampled: 10/29/2021 11:55

Sample ID: 21J1966-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.7		% Wt	1		SM 2540G	11/1/21	11/2/21 14:55	AP
Hexavalent Chromium	ND	0.88	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	190		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @21.1°C	4.3		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P303-0003-102921
Sampled: 10/29/2021 11:55

Sample ID: 21J1966-01

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	20.4	8.2	mg/kg	1		EPA 6010		11/3/21 21:51	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P303-0306-102921 | Sampled: 10/29/2021 12:00

Sample ID: 21J1966-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:42	QNW
Chromium	2.7	0.73	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:42	QNW
Chromium, Trivalent	2.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 19:42	QNW
Copper	1.7	0.73	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:42	QNW
Iron	3500	18	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:42	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P303-0306-102921 | Sampled: 10/29/2021 12:00

Sample ID: 21J1966-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	11/1/21	11/2/21 14:55	AP
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	200		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P303-0306-102921
Sampled: 10/29/2021 12:00

Sample ID: 21J1966-02

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	ND	9.3	mg/kg	1		EPA 6010		11/3/21 21:55	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P306-0003-102921 | Sampled: 10/29/2021 12:05

Sample ID: 21J1966-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:47	QNW
Chromium	3.0	0.76	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:47	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 19:47	QNW
Copper	1.7	0.76	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:47	QNW
Iron	4100	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:47	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P306-0003-102921 | Sampled: 10/29/2021 12:05

Sample ID: 21J1966-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	11/1/21	11/2/21 14:55	AP
Hexavalent Chromium	ND	1.8	mg/Kg dry	10	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.1°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P306-0003-102921
Sampled: 10/29/2021 12:05

Sample ID: 21J1966-03

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	12.1	8.8	mg/kg	1		EPA 6010		11/4/21 11:48	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P306-0306-102921 | Sampled: 10/29/2021 12:10

Sample ID: 21J1966-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:52	QNW
Chromium	3.0	0.72	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:52	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 19:52	QNW
Copper	1.6	0.72	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:52	QNW
Iron	3800	18	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:52	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P306-0306-102921 | Sampled: 10/29/2021 12:10

Sample ID: 21J1966-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.7		% Wt	1		SM 2540G	11/1/21	11/2/21 14:55	AP
Hexavalent Chromium	ND	0.89	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.2°C	4.1		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-S2-SO-P306-0306-102921
Sampled: 10/29/2021 12:10

Sample ID: 21J1966-04

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	10.6	8.8	mg/kg	1		EPA 6010		11/4/21 12:12	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P400-0003-102921 | Sampled: 10/29/2021 13:40

Sample ID: 21J1966-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:56	QNW
Chromium	3.3	0.87	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:56	QNW
Chromium, Trivalent	3.3		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 19:56	QNW
Copper	15	0.87	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:56	QNW
Iron	3900	22	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 19:56	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P400-0003-102921 | Sampled: 10/29/2021 13:40

Sample ID: 21J1966-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	72.1		% Wt	1		SM 2540G	11/1/21	11/2/21 14:56	AP
Hexavalent Chromium	ND	2.2	mg/Kg dry	10	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	200		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.8°C	4.3		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P400-0003-102921
Sampled: 10/29/2021 13:40

Sample ID: 21J1966-05

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	55.6	9.1	mg/kg	1		EPA 6010		11/4/21 12:16	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P400-0306-102921 | Sampled: 10/29/2021 13:45

Sample ID: 21J1966-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:45	QNW
Chromium	2.7	0.81	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:45	QNW
Chromium, Trivalent	2.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/3/21 11:45	QNW
Copper	6.0	0.81	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:45	QNW
Iron	4500	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:45	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P400-0306-102921 | Sampled: 10/29/2021 13:45

Sample ID: 21J1966-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.4		% Wt	1		SM 2540G	11/1/21	11/2/21 14:56	AP
Hexavalent Chromium	ND	0.96	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.5°C	4.6		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P400-0306-102921
Sampled: 10/29/2021 13:45

Sample ID: 21J1966-06

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	19.2	9.3	mg/kg	1		EPA 6010		11/4/21 12:20	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P401-0003-102921 | Sampled: 10/29/2021 13:50

Sample ID: 21J1966-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:50	QNW
Chromium	3.4	0.80	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:50	QNW
Chromium, Trivalent	3.4		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/3/21 11:50	QNW
Copper	6.9	0.80	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:50	QNW
Iron	3400	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 11:50	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P401-0003-102921 | Sampled: 10/29/2021 13:50

Sample ID: 21J1966-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.1		% Wt	1		SM 2540G	11/1/21	11/2/21 14:56	AP
Hexavalent Chromium	ND	0.98	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.7°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P401-0003-102921
Sampled: 10/29/2021 13:50

Sample ID: 21J1966-07

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	38.2	10	mg/kg	1		EPA 6010		11/4/21 12:24	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P401-0306-102921 | Sampled: 10/29/2021 13:55

Sample ID: 21J1966-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 16:30	QNW
Chromium	2.4	0.78	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 16:30	QNW
Chromium, Trivalent	2.4		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:13	QNW
Copper	5.4	0.78	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 16:30	QNW
Iron	4000	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/3/21 16:30	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P401-0306-102921 | Sampled: 10/29/2021 13:55

Sample ID: 21J1966-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.6		% Wt	1		SM 2540G	11/1/21	11/2/21 14:56	AP
Hexavalent Chromium	ND	0.97	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.7°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P401-0306-102921 | Sampled: 10/29/2021 13:55

Sample ID: 21J1966-08

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	29.3	9.8	mg/kg	1		EPA 6010		11/4/21 12:28	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P403-0003-102921 | Sampled: 10/29/2021 14:00

Sample ID: 21J1966-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:18	QNW
Chromium	2.6	0.80	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:18	QNW
Chromium, Trivalent	2.6		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:18	QNW
Copper	5.9	0.80	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:18	QNW
Iron	3200	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:18	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P403-0003-102921 | Sampled: 10/29/2021 14:00

Sample ID: 21J1966-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.4		% Wt	1		SM 2540G	11/1/21	11/2/21 14:56	AP
Hexavalent Chromium	ND	0.95	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	270		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.8°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P403-0003-102921
Sampled: 10/29/2021 14:00

Sample ID: 21J1966-09

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	38.1	9.8	mg/kg	1		EPA 6010		11/4/21 12:32	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P403-0306-102921 | Sampled: 10/29/2021 14:05

Sample ID: 21J1966-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:23	QNW
Chromium	6.7	0.80	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:23	QNW
Chromium, Trivalent	6.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:23	QNW
Copper	6.6	0.80	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:23	QNW
Iron	5100	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:23	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P403-0306-102921 | Sampled: 10/29/2021 14:05

Sample ID: 21J1966-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.9		% Wt	1		SM 2540G	11/1/21	11/2/21 14:56	AP
Hexavalent Chromium	ND	0.98	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.1°C	4.7		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P403-0306-102921
Sampled: 10/29/2021 14:05

Sample ID: 21J1966-10

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	34.4	7.5	mg/kg	1		EPA 6010		11/4/21 12:36	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P406-0003-102921 | Sampled: 10/29/2021 14:10

Sample ID: 21J1966-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.1	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:28	QNW
Chromium	2.5	0.82	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:28	QNW
Chromium, Trivalent	2.5		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:28	QNW
Copper	12	0.82	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:28	QNW
Iron	3500	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:28	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P406-0003-102921 | Sampled: 10/29/2021 14:10

Sample ID: 21J1966-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.2		% Wt	1		SM 2540G	11/1/21	11/2/21 14:57	AP
Hexavalent Chromium	ND	0.98	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	190		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.2°C	5.6		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P406-0003-102921
Sampled: 10/29/2021 14:10

Sample ID: 21J1966-11

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	45.3	8.5	mg/kg	1		EPA 6010		11/4/21 12:48	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P406-0306-102921 | Sampled: 10/29/2021 14:15

Sample ID: 21J1966-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:44	QNW
Chromium	3.0	0.81	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:44	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:44	QNW
Copper	8.8	0.81	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:44	QNW
Iron	3800	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:44	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P406-0306-102921 | Sampled: 10/29/2021 14:15

Sample ID: 21J1966-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	78.0		% Wt	1		SM 2540G	11/1/21	11/2/21 14:57	AP
Hexavalent Chromium	ND	0.99	mg/Kg dry	5	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.5°C	5.3		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N3-SO-P406-0306-102921
Sampled: 10/29/2021 14:15

Sample ID: 21J1966-12

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	55.5	8.8	mg/kg	1		EPA 6010		11/4/21 12:53	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P500-0003-102921 | Sampled: 10/29/2021 15:05

Sample ID: 21J1966-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.6	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:49	QNW
Chromium	3.4	0.92	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:49	QNW
Chromium, Trivalent	3.4		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:49	QNW
Copper	2.9	0.92	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:49	QNW
Iron	5300	23	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:49	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P500-0003-102921 | Sampled: 10/29/2021 15:05

Sample ID: 21J1966-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.7		% Wt	1		SM 2540G	11/1/21	11/2/21 14:57	AP
Hexavalent Chromium	ND	2.3	mg/Kg dry	10	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.7°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P500-0003-102921 | Sampled: 10/29/2021 15:05

Sample ID: 21J1966-13

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	102	8.9	mg/kg	1		EPA 6010		11/4/21 12:57	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P500-0306-102921 | Sampled: 10/29/2021 15:10

Sample ID: 21J1966-14

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.5	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:54	QNW
Chromium	3.6	1.1	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:54	QNW
Chromium, Trivalent	3.6		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:54	QNW
Copper	4.0	1.1	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:54	QNW
Iron	7000	27	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:54	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P500-0306-102921 | Sampled: 10/29/2021 15:10

Sample ID: 21J1966-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	59.2		% Wt	1		SM 2540G	11/1/21	11/2/21 14:57	AP
Hexavalent Chromium	ND	2.7	mg/Kg dry	10	W-06	SW-846 7196A	11/2/21	11/3/21 10:40	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.9°C	5.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P500-0306-102921
Sampled: 10/29/2021 15:10

Sample ID: 21J1966-14

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	134	9.4	mg/kg	1		EPA 6010		11/4/21 13:01	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P501-0003-102921 | Sampled: 10/29/2021 15:15

Sample ID: 21J1966-15

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.5	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:59	QNW
Chromium	2.4	0.91	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:59	QNW
Chromium, Trivalent	2.4		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 20:59	QNW
Copper	1.9	0.91	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:59	QNW
Iron	4100	23	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 20:59	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P501-0003-102921 | Sampled: 10/29/2021 15:15

Sample ID: 21J1966-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	70.2		% Wt	1		SM 2540G	11/1/21	11/2/21 14:57	AP
Hexavalent Chromium	ND	2.3	mg/Kg dry	10	MS-16, W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.7°C	4.6		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P501-0003-102921
Sampled: 10/29/2021 15:15

Sample ID: 21J1966-15

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	80.9	8.2	mg/kg	1		EPA 6010		11/4/21 13:05	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P501-0306-102921 | Sampled: 10/29/2021 15:20

Sample ID: 21J1966-16

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.5	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:04	QNW
Chromium	2.7	0.89	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:04	QNW
Chromium, Trivalent	2.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 21:04	QNW
Copper	2.0	0.89	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:04	QNW
Iron	3500	22	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:04	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P501-0306-102921 | Sampled: 10/29/2021 15:20

Sample ID: 21J1966-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	70.6		% Wt	1		SM 2540G	11/1/21	11/2/21 14:57	AP
Hexavalent Chromium	ND	2.2	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @18.2°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P501-0306-102921
Sampled: 10/29/2021 15:20

Sample ID: 21J1966-16

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	84.6	8.6	mg/kg	1		EPA 6010		11/4/21 13:09	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P503-0003-102921 | Sampled: 10/29/2021 15:25

Sample ID: 21J1966-17

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:09	QNW
Chromium	3.0	0.89	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:09	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 21:09	QNW
Copper	2.5	0.89	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:09	QNW
Iron	4800	22	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 21:09	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P503-0003-102921 | Sampled: 10/29/2021 15:25

Sample ID: 21J1966-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	74.0		% Wt	1		SM 2540G	11/1/21	11/2/21 14:57	AP
Hexavalent Chromium	ND	2.1	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.5°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P503-0003-102921 | Sampled: 10/29/2021 15:25

Sample ID: 21J1966-17

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	104	10	mg/kg	1		EPA 6010		11/4/21 13:13	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P503-0306-102921 | Sampled: 10/29/2021 15:30

Sample ID: 21J1966-18

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.5	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:04	QNW
Chromium	2.6	0.90	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:04	QNW
Chromium, Trivalent	2.6		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 18:04	QNW
Copper	2.0	0.90	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:04	QNW
Iron	3100	23	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:04	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P503-0306-102921 | Sampled: 10/29/2021 15:30

Sample ID: 21J1966-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	70.2		% Wt	1		SM 2540G	11/1/21	11/2/21 14:58	AP
Hexavalent Chromium	ND	2.2	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.6°C	5.0		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P503-0306-102921 | Sampled: 10/29/2021 15:30

Sample ID: 21J1966-18

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	115	7.6	mg/kg	1		EPA 6010		11/4/21 13:17	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P506-0003-102921 | Sampled: 10/29/2021 15:35

Sample ID: 21J1966-19

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:09	QNW
Chromium	3.3	0.93	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:09	QNW
Chromium, Trivalent	3.3		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 18:09	QNW
Copper	2.8	0.93	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:09	QNW
Iron	5000	23	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 18:09	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P506-0003-102921 | Sampled: 10/29/2021 15:35

Sample ID: 21J1966-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	67.6		% Wt	1		SM 2540G	11/1/21	11/2/21 14:58	AP
Hexavalent Chromium	ND	2.3	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.6°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P506-0003-102921
Sampled: 10/29/2021 15:35

Sample ID: 21J1966-19

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	26.5	7.5	mg/kg	1		EPA 6010		11/4/21 13:21	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P506-0306-102921 | Sampled: 10/29/2021 15:40

Sample ID: 21J1966-20

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.9	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:44	QNW
Chromium	3.8	0.97	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:44	QNW
Chromium, Trivalent	3.8		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 14:44	QNW
Copper	4.2	0.97	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:44	QNW
Iron	4300	24	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:44	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P506-0306-102921 | Sampled: 10/29/2021 15:40

Sample ID: 21J1966-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	66.5		% Wt	1		SM 2540G	11/1/21	11/2/21 14:58	AP
Hexavalent Chromium	ND	2.3	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20°C	5.2		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-M1-SO-P506-0306-102921
Sampled: 10/29/2021 15:40

Sample ID: 21J1966-20

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	52.7	8.6	mg/kg	1		EPA 6010		11/4/21 13:25	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N1-SO-CTLP-0003-102921 | Sampled: 10/29/2021 14:50

Sample ID: 21J1966-21

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:49	QNW
Chromium	2.8	0.77	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:49	QNW
Chromium, Trivalent	2.8		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 14:49	QNW
Copper	3.8	0.77	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:49	QNW
Iron	4800	19	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 14:49	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N1-SO-CTLP-0003-102921 | Sampled: 10/29/2021 14:50

Sample ID: 21J1966-21

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.9		% Wt	1		SM 2540G	11/1/21	11/2/21 14:58	AP
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.1°C	4.8		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N1-SO-CTLP-0003-102921
Sampled: 10/29/2021 14:50

Sample ID: 21J1966-21

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	20.9	8.9	mg/kg	1		EPA 6010		11/4/21 13:37	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N1-SO-CTLP-0306-102921 | Sampled: 10/29/2021 14:55

Sample ID: 21J1966-22

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:05	QNW
Chromium	2.7	0.79	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:05	QNW
Chromium, Trivalent	2.7		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 15:05	QNW
Copper	2.8	0.79	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:05	QNW
Iron	4700	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:05	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N1-SO-CTLP-0306-102921 | Sampled: 10/29/2021 14:55

Sample ID: 21J1966-22

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.9		% Wt	1		SM 2540G	11/1/21	11/2/21 14:59	AP
Hexavalent Chromium	ND	0.95	mg/Kg dry	5	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.9°C	4.6		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N1-SO-CTLP-0306-102921 | Sampled: 10/29/2021 14:55

Sample ID: 21J1966-22

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	26.4	8.6	mg/kg	1		EPA 6010		11/4/21 13:41	PSR

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N4-SO-CTLP-0003-102921
Sampled: 10/29/2021 13:15

Sample ID: 21J1966-23

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.3	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 13:24	QNW
Chromium	2.7	0.86	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 13:24	QNW
Chromium, Trivalent	2.7		mg/Kg	1		Tri Chrome Calc.	11/3/21	11/5/21 13:24	QNW
Copper	12	0.86	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 13:24	QNW
Iron	7500	22	mg/Kg dry	1		SW-846 6010D	11/3/21	11/5/21 13:24	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N4-SO-CTLP-0003-102921 | Sampled: 10/29/2021 13:15

Sample ID: 21J1966-23

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	75.8		% Wt	1		SM 2540G	11/1/21	11/2/21 14:59	AP
Hexavalent Chromium	ND	2.1	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @18.9°C	4.6		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N4-SO-CTLP-0003-102921
Sampled: 10/29/2021 13:15

Sample ID: 21J1966-23

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	105	9.3	mg/kg	1		EPA 6010		11/3/21 11:54	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N4-SO-CTLP-0306-102921 | Sampled: 10/29/2021 13:20

Sample ID: 21J1966-24

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:16	QNW
Chromium	4.5	0.79	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:16	QNW
Chromium, Trivalent	4.5		mg/Kg	1		Tri Chrome Calc.	11/1/21	11/2/21 15:16	QNW
Copper	9.7	0.79	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:16	QNW
Iron	8500	20	mg/Kg dry	1		SW-846 6010D	11/1/21	11/2/21 15:16	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N4-SO-CTLP-0306-102921 | Sampled: 10/29/2021 13:20

Sample ID: 21J1966-24

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.8		% Wt	1		SM 2540G	11/1/21	11/2/21 14:59	AP
Hexavalent Chromium	ND	0.99	mg/Kg dry	5	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	200		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.2°C	4.8		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1966

Date Received: 10/29/2021

Field Sample #: SC3-N4-SO-CTLP-0306-102921
Sampled: 10/29/2021 13:20

Sample ID: 21J1966-24

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	54	9.3	mg/kg	1		EPA 6010		11/3/21 12:17	PSR

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1966-01 [SC3-S2-SO-P303-0003-102921]	B293689	11/01/21
21J1966-02 [SC3-S2-SO-P303-0306-102921]	B293689	11/01/21
21J1966-03 [SC3-S2-SO-P306-0003-102921]	B293689	11/01/21
21J1966-04 [SC3-S2-SO-P306-0306-102921]	B293689	11/01/21
21J1966-05 [SC3-N3-SO-P400-0003-102921]	B293689	11/01/21
21J1966-06 [SC3-N3-SO-P400-0306-102921]	B293689	11/01/21
21J1966-07 [SC3-N3-SO-P401-0003-102921]	B293689	11/01/21
21J1966-08 [SC3-N3-SO-P401-0306-102921]	B293689	11/01/21
21J1966-09 [SC3-N3-SO-P403-0003-102921]	B293689	11/01/21
21J1966-10 [SC3-N3-SO-P403-0306-102921]	B293689	11/01/21
21J1966-11 [SC3-N3-SO-P406-0003-102921]	B293689	11/01/21
21J1966-12 [SC3-N3-SO-P406-0306-102921]	B293689	11/01/21
21J1966-13 [SC3-M1-SO-P500-0003-102921]	B293689	11/01/21
21J1966-14 [SC3-M1-SO-P500-0306-102921]	B293689	11/01/21
21J1966-15 [SC3-M1-SO-P501-0003-102921]	B293689	11/01/21
21J1966-16 [SC3-M1-SO-P501-0306-102921]	B293689	11/01/21
21J1966-17 [SC3-M1-SO-P503-0003-102921]	B293689	11/01/21
21J1966-18 [SC3-M1-SO-P503-0306-102921]	B293689	11/01/21
21J1966-19 [SC3-M1-SO-P506-0003-102921]	B293689	11/01/21
21J1966-20 [SC3-M1-SO-P506-0306-102921]	B293689	11/01/21
21J1966-21 [SC3-N1-SO-CTLP-0003-102921]	B293689	11/01/21
21J1966-22 [SC3-N1-SO-CTLP-0306-102921]	B293689	11/01/21
21J1966-23 [SC3-N4-SO-CTLP-0003-102921]	B293689	11/01/21
21J1966-24 [SC3-N4-SO-CTLP-0306-102921]	B293689	11/01/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-01 [SC3-S2-SO-P303-0003-102921]	B293629	20.0	10/29/21
21J1966-02 [SC3-S2-SO-P303-0306-102921]	B293629	20.0	10/29/21
21J1966-03 [SC3-S2-SO-P306-0003-102921]	B293629	20.0	10/29/21
21J1966-04 [SC3-S2-SO-P306-0306-102921]	B293629	20.0	10/29/21
21J1966-05 [SC3-N3-SO-P400-0003-102921]	B293629	20.0	10/29/21
21J1966-06 [SC3-N3-SO-P400-0306-102921]	B293629	20.0	10/29/21
21J1966-07 [SC3-N3-SO-P401-0003-102921]	B293629	20.0	10/29/21
21J1966-08 [SC3-N3-SO-P401-0306-102921]	B293629	20.0	10/29/21
21J1966-09 [SC3-N3-SO-P403-0003-102921]	B293629	20.0	10/29/21
21J1966-10 [SC3-N3-SO-P403-0306-102921]	B293629	20.0	10/29/21
21J1966-11 [SC3-N3-SO-P406-0003-102921]	B293629	20.0	10/29/21
21J1966-12 [SC3-N3-SO-P406-0306-102921]	B293629	20.0	10/29/21
21J1966-13 [SC3-M1-SO-P500-0003-102921]	B293629	20.0	10/29/21
21J1966-14 [SC3-M1-SO-P500-0306-102921]	B293629	20.0	10/29/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-15 [SC3-M1-SO-P501-0003-102921]	B293630	20.0	10/29/21
21J1966-16 [SC3-M1-SO-P501-0306-102921]	B293630	20.0	10/29/21
21J1966-17 [SC3-M1-SO-P503-0003-102921]	B293630	20.0	10/29/21
21J1966-18 [SC3-M1-SO-P503-0306-102921]	B293630	20.0	10/29/21
21J1966-19 [SC3-M1-SO-P506-0003-102921]	B293630	20.0	10/29/21
21J1966-20 [SC3-M1-SO-P506-0306-102921]	B293630	20.0	10/29/21
21J1966-21 [SC3-N1-SO-CTLP-0003-102921]	B293630	20.0	10/29/21

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Sample Extraction Data

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Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-22 [SC3-N1-SO-CTLP-0306-102921]	B293630	20.0	10/29/21
21J1966-23 [SC3-N4-SO-CTLP-0003-102921]	B293630	20.0	10/29/21
21J1966-24 [SC3-N4-SO-CTLP-0306-102921]	B293630	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1966-20 [SC3-M1-SO-P506-0306-102921]	B293723	1.54	50.0	11/01/21
21J1966-21 [SC3-N1-SO-CTLP-0003-102921]	B293723	1.52	50.0	11/01/21
21J1966-22 [SC3-N1-SO-CTLP-0306-102921]	B293723	1.54	50.0	11/01/21
21J1966-24 [SC3-N4-SO-CTLP-0306-102921]	B293723	1.58	50.0	11/01/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1966-01 [SC3-S2-SO-P303-0003-102921]	B293730	1.51	50.0	11/01/21
21J1966-02 [SC3-S2-SO-P303-0306-102921]	B293730	1.57	50.0	11/01/21
21J1966-03 [SC3-S2-SO-P306-0003-102921]	B293730	1.52	50.0	11/01/21
21J1966-04 [SC3-S2-SO-P306-0306-102921]	B293730	1.59	50.0	11/01/21
21J1966-05 [SC3-N3-SO-P400-0003-102921]	B293730	1.59	50.0	11/01/21
21J1966-06 [SC3-N3-SO-P400-0306-102921]	B293730	1.50	50.0	11/01/21
21J1966-07 [SC3-N3-SO-P401-0003-102921]	B293730	1.59	50.0	11/01/21
21J1966-08 [SC3-N3-SO-P401-0306-102921]	B293730	1.58	50.0	11/01/21
21J1966-09 [SC3-N3-SO-P403-0003-102921]	B293730	1.53	50.0	11/01/21
21J1966-10 [SC3-N3-SO-P403-0306-102921]	B293730	1.56	50.0	11/01/21
21J1966-11 [SC3-N3-SO-P406-0003-102921]	B293730	1.55	50.0	11/01/21
21J1966-12 [SC3-N3-SO-P406-0306-102921]	B293730	1.59	50.0	11/01/21
21J1966-13 [SC3-M1-SO-P500-0003-102921]	B293730	1.59	50.0	11/01/21
21J1966-14 [SC3-M1-SO-P500-0306-102921]	B293730	1.54	50.0	11/01/21
21J1966-15 [SC3-M1-SO-P501-0003-102921]	B293730	1.57	50.0	11/01/21
21J1966-16 [SC3-M1-SO-P501-0306-102921]	B293730	1.58	50.0	11/01/21
21J1966-17 [SC3-M1-SO-P503-0003-102921]	B293730	1.53	50.0	11/01/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1966-18 [SC3-M1-SO-P503-0306-102921]	B293738	1.58	50.0	11/01/21
21J1966-19 [SC3-M1-SO-P506-0003-102921]	B293738	1.59	50.0	11/01/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1966-23RE1 [SC3-N4-SO-CTLP-0003-102921]	B293936	1.53	50.0	11/03/21

Prep Method: SW-846 7196A **Analytical Method: SW-846 7196A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1966-01 [SC3-S2-SO-P303-0003-102921]	B293754	2.59	100	11/02/21
21J1966-02 [SC3-S2-SO-P303-0306-102921]	B293754	2.52	100	11/02/21

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Sample Extraction Data

Prep Method: SW-846 7196A **Analytical Method: SW-846 7196A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1966-03 [SC3-S2-SO-P306-0003-102921]	B293754	2.55	100	11/02/21
21J1966-04 [SC3-S2-SO-P306-0306-102921]	B293754	2.57	100	11/02/21
21J1966-05 [SC3-N3-SO-P400-0003-102921]	B293754	2.51	100	11/02/21
21J1966-06 [SC3-N3-SO-P400-0306-102921]	B293754	2.52	100	11/02/21
21J1966-07 [SC3-N3-SO-P401-0003-102921]	B293754	2.58	100	11/02/21
21J1966-08 [SC3-N3-SO-P401-0306-102921]	B293754	2.52	100	11/02/21
21J1966-09 [SC3-N3-SO-P403-0003-102921]	B293754	2.57	100	11/02/21
21J1966-10 [SC3-N3-SO-P403-0306-102921]	B293754	2.55	100	11/02/21
21J1966-11 [SC3-N3-SO-P406-0003-102921]	B293754	2.57	100	11/02/21
21J1966-12 [SC3-N3-SO-P406-0306-102921]	B293754	2.59	100	11/02/21
21J1966-13 [SC3-M1-SO-P500-0003-102921]	B293754	2.57	100	11/02/21
21J1966-14 [SC3-M1-SO-P500-0306-102921]	B293754	2.51	100	11/02/21

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1966-15 [SC3-M1-SO-P501-0003-102921]	B293852	2.51	100	11/03/21
21J1966-16 [SC3-M1-SO-P501-0306-102921]	B293852	2.56	100	11/03/21
21J1966-17 [SC3-M1-SO-P503-0003-102921]	B293852	2.54	100	11/03/21
21J1966-18 [SC3-M1-SO-P503-0306-102921]	B293852	2.56	100	11/03/21
21J1966-19 [SC3-M1-SO-P506-0003-102921]	B293852	2.52	100	11/03/21
21J1966-20 [SC3-M1-SO-P506-0306-102921]	B293852	2.56	100	11/03/21
21J1966-21 [SC3-N1-SO-CTLP-0003-102921]	B293852	2.57	100	11/03/21
21J1966-22 [SC3-N1-SO-CTLP-0306-102921]	B293852	2.58	100	11/03/21
21J1966-23 [SC3-N4-SO-CTLP-0003-102921]	B293852	2.56	100	11/03/21
21J1966-24 [SC3-N4-SO-CTLP-0306-102921]	B293852	2.54	100	11/03/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-01 [SC3-S2-SO-P303-0003-102921]	B293626	20.0	10/29/21
21J1966-02 [SC3-S2-SO-P303-0306-102921]	B293626	20.0	10/29/21
21J1966-03 [SC3-S2-SO-P306-0003-102921]	B293626	20.0	10/29/21
21J1966-04 [SC3-S2-SO-P306-0306-102921]	B293626	20.0	10/29/21
21J1966-05 [SC3-N3-SO-P400-0003-102921]	B293626	20.0	10/29/21
21J1966-06 [SC3-N3-SO-P400-0306-102921]	B293626	20.0	10/29/21
21J1966-07 [SC3-N3-SO-P401-0003-102921]	B293626	20.0	10/29/21
21J1966-08 [SC3-N3-SO-P401-0306-102921]	B293626	20.0	10/29/21
21J1966-09 [SC3-N3-SO-P403-0003-102921]	B293626	20.0	10/29/21
21J1966-10 [SC3-N3-SO-P403-0306-102921]	B293626	20.0	10/29/21
21J1966-11 [SC3-N3-SO-P406-0003-102921]	B293626	20.0	10/29/21
21J1966-12 [SC3-N3-SO-P406-0306-102921]	B293626	20.0	10/29/21
21J1966-13 [SC3-M1-SO-P500-0003-102921]	B293626	20.0	10/29/21
21J1966-14 [SC3-M1-SO-P500-0306-102921]	B293626	20.0	10/29/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-15 [SC3-M1-SO-P501-0003-102921]	B293627	20.0	10/29/21
21J1966-16 [SC3-M1-SO-P501-0306-102921]	B293627	20.0	10/29/21
21J1966-17 [SC3-M1-SO-P503-0003-102921]	B293627	20.0	10/29/21

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Sample Extraction Data

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-18 [SC3-M1-SO-P503-0306-102921]	B293627	20.0	10/29/21
21J1966-19 [SC3-M1-SO-P506-0003-102921]	B293627	20.0	10/29/21
21J1966-20 [SC3-M1-SO-P506-0306-102921]	B293627	20.0	10/29/21
21J1966-21 [SC3-N1-SO-CTLP-0003-102921]	B293627	20.0	10/29/21
21J1966-22 [SC3-N1-SO-CTLP-0306-102921]	B293627	20.0	10/29/21
21J1966-23 [SC3-N4-SO-CTLP-0003-102921]	B293627	20.0	10/29/21
21J1966-24 [SC3-N4-SO-CTLP-0306-102921]	B293627	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-20 [SC3-M1-SO-P506-0306-102921]	B293723	1.54	11/01/21
21J1966-21 [SC3-N1-SO-CTLP-0003-102921]	B293723	1.52	11/01/21
21J1966-22 [SC3-N1-SO-CTLP-0306-102921]	B293723	1.54	11/01/21
21J1966-24 [SC3-N4-SO-CTLP-0306-102921]	B293723	1.58	11/01/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-01 [SC3-S2-SO-P303-0003-102921]	B293730	1.51	11/01/21
21J1966-02 [SC3-S2-SO-P303-0306-102921]	B293730	1.57	11/01/21
21J1966-03 [SC3-S2-SO-P306-0003-102921]	B293730	1.52	11/01/21
21J1966-04 [SC3-S2-SO-P306-0306-102921]	B293730	1.59	11/01/21
21J1966-05 [SC3-N3-SO-P400-0003-102921]	B293730	1.59	11/01/21
21J1966-06 [SC3-N3-SO-P400-0306-102921]	B293730	1.50	11/01/21
21J1966-07 [SC3-N3-SO-P401-0003-102921]	B293730	1.59	11/01/21
21J1966-08 [SC3-N3-SO-P401-0306-102921]	B293730	1.58	11/01/21
21J1966-09 [SC3-N3-SO-P403-0003-102921]	B293730	1.53	11/01/21
21J1966-10 [SC3-N3-SO-P403-0306-102921]	B293730	1.56	11/01/21
21J1966-11 [SC3-N3-SO-P406-0003-102921]	B293730	1.55	11/01/21
21J1966-12 [SC3-N3-SO-P406-0306-102921]	B293730	1.59	11/01/21
21J1966-13 [SC3-M1-SO-P500-0003-102921]	B293730	1.59	11/01/21
21J1966-14 [SC3-M1-SO-P500-0306-102921]	B293730	1.54	11/01/21
21J1966-15 [SC3-M1-SO-P501-0003-102921]	B293730	1.57	11/01/21
21J1966-16 [SC3-M1-SO-P501-0306-102921]	B293730	1.58	11/01/21
21J1966-17 [SC3-M1-SO-P503-0003-102921]	B293730	1.53	11/01/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-18 [SC3-M1-SO-P503-0306-102921]	B293738	1.58	11/01/21
21J1966-19 [SC3-M1-SO-P506-0003-102921]	B293738	1.59	11/01/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1966-23RE1 [SC3-N4-SO-CTLP-0003-102921]	B293936	1.53	11/03/21

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293723 - SW-846 3050B										
Blank (B293723-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.66	mg/Kg wet							
Copper	ND	0.66	mg/Kg wet							
Iron	ND	16	mg/Kg wet							
LCS (B293723-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	152	9.3	mg/Kg wet	170		89.7	82.9-117.6			
Chromium	97.3	1.9	mg/Kg wet	101		96.3	82.1-117.8			
Copper	149	1.9	mg/Kg wet	149		100	83.9-116.1			
Iron	9550	46	mg/Kg wet	14100		67.8	60-139.7			
LCS Dup (B293723-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	157	10	mg/Kg wet	170		92.6	82.9-117.6	3.15	30	
Chromium	99.1	2.0	mg/Kg wet	101		98.1	82.1-117.8	1.88	30	
Copper	157	2.0	mg/Kg wet	149		105	83.9-116.1	5.11	30	
Iron	10100	50	mg/Kg wet	14100		71.7	60-139.7	5.62	30	
Batch B293730 - SW-846 3050B										
Blank (B293730-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.66	mg/Kg wet							
Copper	ND	0.66	mg/Kg wet							
Iron	ND	16	mg/Kg wet							
LCS (B293730-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	152	9.8	mg/Kg wet	170		89.3	82.9-117.6			
Chromium	97.7	2.0	mg/Kg wet	101		96.7	82.1-117.8			
Copper	151	2.0	mg/Kg wet	149		101	83.9-116.1			
Iron	9960	49	mg/Kg wet	14100		70.6	60-139.7			
LCS Dup (B293730-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	159	9.8	mg/Kg wet	170		93.6	82.9-117.6	4.68	30	
Chromium	99.5	2.0	mg/Kg wet	101		98.5	82.1-117.8	1.82	30	
Copper	155	2.0	mg/Kg wet	149		104	83.9-116.1	2.64	30	
Iron	10600	49	mg/Kg wet	14100		75.0	60-139.7	6.01	30	
Batch B293738 - SW-846 3050B										
Blank (B293738-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.66	mg/Kg wet							
Copper	ND	0.66	mg/Kg wet							
Iron	ND	17	mg/Kg wet							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293738 - SW-846 3050B											
LCS (B293738-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21							
Arsenic	156	9.9	mg/Kg wet	170		91.6		82.9-117.6			
Chromium	98.4	2.0	mg/Kg wet	101		97.4		82.1-117.8			
Copper	153	2.0	mg/Kg wet	149		103		83.9-116.1			
Iron	10300	50	mg/Kg wet	14100		72.9		60-139.7			
LCS Dup (B293738-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21							
Arsenic	151	9.9	mg/Kg wet	170		88.9		82.9-117.6	2.94	30	
Chromium	95.6	2.0	mg/Kg wet	101		94.7		82.1-117.8	2.84	30	
Copper	146	2.0	mg/Kg wet	149		98.0		83.9-116.1	4.78	30	
Iron	9620	50	mg/Kg wet	14100		68.2		60-139.7	6.68	30	
Batch B293936 - SW-846 3050B											
Blank (B293936-BLK1)				Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	ND	3.3	mg/Kg wet								
Chromium	ND	0.67	mg/Kg wet								
Copper	ND	0.67	mg/Kg wet								
Iron	ND	17	mg/Kg wet								
LCS (B293936-BS1)				Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	144	9.9	mg/Kg wet	170		84.8		82.9-117.6			
Chromium	92.0	2.0	mg/Kg wet	101		91.0		82.1-117.8			
Copper	137	2.0	mg/Kg wet	149		92.2		83.9-116.1			
Iron	8680	50	mg/Kg wet	14100		61.6		60-139.7			
LCS Dup (B293936-BSD1)				Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	142	9.7	mg/Kg wet	170		83.7		82.9-117.6	1.26	30	
Chromium	91.3	1.9	mg/Kg wet	101		90.4		82.1-117.8	0.659	30	
Copper	138	1.9	mg/Kg wet	149		92.5		83.9-116.1	0.256	30	
Iron	8990	49	mg/Kg wet	14100		63.8		60-139.7	3.51	30	
Matrix Spike (B293936-MS2)		**Source: 21J1966-23RE1**		Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	21.9	4.3	mg/Kg dry	21.6	2.23	91.2		75-125			
Chromium	24.2	0.86	mg/Kg dry	21.6	2.69	99.3		75-125			
Copper	60.3	0.86	mg/Kg dry	43.2	12.2	111		75-125			
Iron	9400	22	mg/Kg dry	173	7520	**1090**	*	75-125			
Matrix Spike Dup (B293936-MSD2)		**Source: 21J1966-23RE1**		Prepared: 11/03/21 Analyzed: 11/05/21							
Arsenic	22.8	4.4	mg/Kg dry	21.8	2.23	94.2		75-125	3.81	35	
Chromium	26.2	0.87	mg/Kg dry	21.8	2.69	108		75-125	8.31	35	
Copper	61.0	0.87	mg/Kg dry	43.7	12.2	112		75-125	1.18	35	
Iron	8690	22	mg/Kg dry	175	7520	**668**	*	75-125	7.86	35	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293626 - SW-846 9045C										
LCS (B293626-BS1)				Prepared & Analyzed: 10/29/21						
pH	6.03		pH Units	6.00		101	90-110			
LCS (B293626-BS2)				Prepared & Analyzed: 10/29/21						
pH	6.01		pH Units	6.00		100	90-110			
Duplicate (B293626-DUP1)	**Source: 21J1966-04**			Prepared & Analyzed: 10/29/21						
pH	4.1		pH Units		4.1			0.146	10	
Duplicate (B293626-DUP2)	**Source: 21J1966-14**			Prepared & Analyzed: 10/29/21						
pH	5.3		pH Units		5.5			3.15	10	
Batch B293627 - SW-846 9045C										
LCS (B293627-BS1)				Prepared & Analyzed: 10/29/21						
pH	5.96		pH Units	6.00		99.4	90-110			
LCS (B293627-BS2)				Prepared & Analyzed: 10/29/21						
pH	5.98		pH Units	6.00		99.6	90-110			
Duplicate (B293627-DUP1)	**Source: 21J1966-24**			Prepared & Analyzed: 10/29/21						
pH	4.8		pH Units		4.8			1.25	10	
Batch B293629 - SM2580 A										
Duplicate (B293629-DUP1)	**Source: 21J1966-04**			Prepared & Analyzed: 10/29/21						
Oxidation/Reduction Potential	205		mV		212			3.36	14.4	
Duplicate (B293629-DUP2)	**Source: 21J1966-14**			Prepared & Analyzed: 10/29/21						
Oxidation/Reduction Potential	210		mV		214			1.89	14.4	
Batch B293630 - SM2580 A										
Duplicate (B293630-DUP1)	**Source: 21J1966-24**			Prepared & Analyzed: 10/29/21						
Oxidation/Reduction Potential	206		mV		201			2.46	14.4	
Batch B293754 - SW-846 7196A										
Blank (B293754-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293754 - SW-846 7196A										
LCS (B293754-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Hexavalent Chromium	82	3.8	mg/Kg wet	88.6		92.7	80-120			
LCS Dup (B293754-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Hexavalent Chromium	94	4.0	mg/Kg wet	91.6		103	80-120	13.4	20	
Batch B293852 - SW-846 7196A										
Blank (B293852-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B293852-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	86	3.9	mg/Kg wet	90.1		95.4	80-120			
LCS Dup (B293852-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	98	3.9	mg/Kg wet	91.3		107	80-120	12.7	20	
Matrix Spike (B293852-MS1)	**Source: 21J1966-15**			Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	8.5	2.2	mg/Kg dry	54.9	ND	**15.6** *	85-115			MS-16
Matrix Spike (B293852-MS2)	**Source: 21J1966-15**			Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	41	2.2	mg/Kg dry	55.0	ND	**75.0** *	85-115			MS-16
Matrix Spike (B293852-MS3)	**Source: 21J1966-15**			Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	420	22	mg/Kg dry	897	ND	**46.9** *	85-115			MS-16
Matrix Spike Dup (B293852-MSD1)	**Source: 21J1966-15**			Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	9.4	2.2	mg/Kg dry	55.6	ND	**16.9** *	85-115	9.43	35	MS-16

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-16	For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
W-06	Elevated method reporting limit due to intense color of sample

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

con-test ANALYTICAL LABORATORY

21J1966

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Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Company Name:	Mabbett
Address:	105 Central St Stoneham
Phone:	781-275-6050
Project Name:	SC3
Project Location:	Carver MA
Project Number:	R202105H.600.004
Project Manager:	S. Vetere
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	CW/MLB

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 11-5-21

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To: vetere@mabbett.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	# of Containers	[2] Preservation Code	[3] Container Code	ANALYSIS REQUESTED: Cr6+ Cr3+	Total As,Cr,Cu,S,Fe	pH, ORP
01	SC3-S2-SO-P303-0003-102921	10/29	1155			S		2	I	A	X	X	X
02	SC3-S2-SO-P303-0306-102921		1200										
03	SC3-S2-SO-P306-0003-102921		1205										
04	SC3-S2-SO-P306-0306-102921		1210										
05	SC3-N3-SO-P400-0003-102921		1340										
06	SC3-N3-SO-P400-0306-102921		1345										
07	SC3-N3-SO-P401-0003-102921		1350										
08	SC3-N3-SO-P401-0306-102921		1355										
09	SC3-N3-SO-P403-0003-102921		1400										
10	SC3-N3-SO-P403-0306-102921	↓	1405			↓		↓	↓	↓	↓	↓	↓

Comments:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)
Plastic bag

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 10/29 1600	
Received by: (signature) Paul Chartney	Date/Time: 10-29-21 16[illegible]	
Relinquished by: (signature) Paul Chartney	Date/Time: 10-29-21 191[illegible]	
Received by: (signature) Tom 10/29/21	Date/Time: 1915	
Relinquished by: (signature) Tom 10/29/21	Date/Time: 2035	
Received by: (signature) 5.4, 2.4, 2.9 4.2C	Date/Time: 10/29/21 2035	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP, LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Nairett
Address: 105 central st Stoneham Ma
Phone: 781-275-6050
Project Name: SC-3
Project Location: canter MA
Project Number: R2021054.000.001
Project Manager: S. Vetere
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: CW/MLB

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 11-5-2021

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: vetere@m...
Fax To #:

of Containers: 2
[2] Preservation Code: I
[3] Container Code: A, O, O

ANALYSIS REQUESTED: Cr6+, Cr3+ | total As, Cr, Cu, SP | pH, ORP

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	Cr6+, Cr3+	total As, Cr, Cu, SP	pH, ORP
11	SC3-N3-P406-0003-102921	10/29	1410			S		X	X	X
12	SC3-N3-P406-0306-102921	↓	1415			↓		↓	↓	↓
13	SC3-M1-SO-P500-0003-102921		1505							
14	SC3-M1-SO-P500-0306-102921		1510							
15	SC3-M1-SO-P501-0003-102921		1515							
16	SC3-M1-SO-P501-0306-102921		1520							
17	SC3-M1-SO-P503-0003-102921		1525							
18	SC3-M1-SO-P503-0306-102921		1530							
19	SC3-M1-SO-P506-0003-102921		1535							
20	SC3-M1-SO-P506-0306-102921	↓	1540			↓		X	X	X

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define) plastic bag

Signature	Date/Time
Relinquished by: (signature) CWay	10-29 1600
Received by: (signature) Paul Chastenay	10-29-21 1615
Relinquished by: (signature) Paul Chastenay	10-29-21 1915
Received by: (signature) Fraser 10/29/21	1915
Relinquished by: (signature) Fraser 10/29/21	2035
Received by: (signature) 5.4, 2.4, 2.9, 4.2°C	10/29/21 2035

Detection Limit Requirements
MA
CT
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY
www.contestlabs.com

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

21919W

http://www.contestlabs.com

Doc # 381 Rev 1_03242017

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Mabbett
Address: 105 Central St, Stoneham
Phone: 781-275-6050
Project Name: SC-3
Project Location: Carver MA
Project Number: R2021054.000.004
Project Manager: S. Vetere
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: MLB/CW

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 11-5-21

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To: vetere@mabbett.com
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	# of Containers	[2] Preservation Code	[3] Container Code	Cr6+, Cr3+	total As, Cr, Cu, S, Fe	pH, ORP
21	SC3-N1-SO-CTLP-0003-102921	10/29		X	X	S		2	I	A	X	X	X
22	SC3-N1-SO-CTLP-0306-102921	↓		↓	↓	↓					X	X	X
23	SC3-N4-SO-CTLP-0003-102921										X	X	X
24	SC3-N4-SO-CTLP-0306			↓	↓	↓					X	X	X

Comments:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define) ziploc bag

	Date/Time:
Relinquished by: (signature)	10-29 1600
Received by: (signature) Paul Chartrand	10-29-21 1615
Relinquished by: (signature) Paul Chartrand	10-29-21 1915
Received by: (signature)	10/29/21 1915
Relinquished by: (signature)	10/29/21 2035
Received by: (signature) 5.4, 2.4, 2.9 4.2°	10/29/21 2035

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client McCoosh

Received By RLF Date 10/29/21 Time 2035

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp -5.4, 2.4, 2.9, 4.2c

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? LA Were Samples Tampered with? LA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Cassie

Is there enough Volume? T

Is there Headspace where applicable? LA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid LA Base LA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	24
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag	24	Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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November 5, 2021

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: r2021054.000.004
Laboratory Work Order Number: 21J1967

Enclosed are results of analyses for samples as received by the laboratory on October 29, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1967

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-S1-SO-P500-0003-102821	21J1967-01	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-S1-SO-P500-0306-102821	21J1967-02	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-S1-SO-P501-0003-102821	21J1967-03	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-S1-SO-P501-0306-102821	21J1967-04	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-S1-SO-P503-0003-102821	21J1967-05	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1967

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-S1-SO-P503-0306-102821	21J1967-06	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-S1-SO-P506-0003-102821	21J1967-07	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-S1-SO-P506-0306-102821	21J1967-08	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-N1-SO-CTLU-0003-102921	21J1967-09	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-N1-SO-CTLU-0306-102921	21J1967-10	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1967

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N2-SO-CTLU-0003-102921	21J1967-11	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-N2-SO-CTLU-0306-102921	21J1967-12	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SM2580 A

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

Oxidation/Reduction Potential

21J1967-01[SC1-S1-SO-P500-0003-102821], 21J1967-02[SC1-S1-SO-P500-0306-102821], 21J1967-03[SC1-S1-SO-P501-0003-102821], 21J1967-04[SC1-S1-SO-P501-0306-102821], 21J1967-05[SC1-S1-SO-P503-0003-102821], 21J1967-06[SC1-S1-SO-P503-0306-102821], 21J1967-07[SC1-S1-SO-P506-0003-102821], 21J1967-08[SC1-S1-SO-P506-0306-102821]

SW-846 7196A

Qualifications:

MS-16

For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1967-11[SC1-N2-SO-CTLU-0003-102921], B293947-MS1, B293947-MS2, B293947-MS3, B293947-MSD1

W-06

Elevated method reporting limit due to intense color of sample

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1967-01[SC1-S1-SO-P500-0003-102821], 21J1967-02[SC1-S1-SO-P500-0306-102821], 21J1967-03[SC1-S1-SO-P501-0003-102821], 21J1967-04[SC1-S1-SO-P501-0306-102821], 21J1967-05[SC1-S1-SO-P503-0003-102821], 21J1967-06[SC1-S1-SO-P503-0306-102821], 21J1967-07[SC1-S1-SO-P506-0003-102821], 21J1967-08[SC1-S1-SO-P506-0306-102821], 21J1967-09[SC1-N1-SO-CTLU-0003-102921], 21J1967-10[SC1-N1-SO-CTLU-0306-102921], 21J1967-11[SC1-N2-SO-CTLU-0003-102921], 21J1967-12[SC1-N2-SO-CTLU-0306-102921]

SW-846 9045C

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

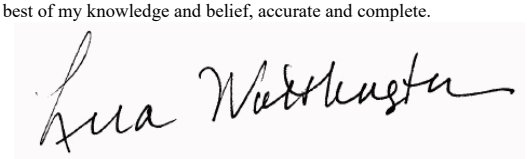
Analyte & Samples(s) Qualified:

pH

21J1967-01[SC1-S1-SO-P500-0003-102821], 21J1967-02[SC1-S1-SO-P500-0306-102821], 21J1967-03[SC1-S1-SO-P501-0003-102821], 21J1967-04[SC1-S1-SO-P501-0306-102821], 21J1967-05[SC1-S1-SO-P503-0003-102821], 21J1967-06[SC1-S1-SO-P503-0306-102821], 21J1967-07[SC1-S1-SO-P506-0003-102821], 21J1967-08[SC1-S1-SO-P506-0306-102821], 21J1967-09[SC1-N1-SO-CTLU-0003-102921]

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P500-0003-102821 | Sampled: 10/28/2021 15:20

Sample ID: 21J1967-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.4	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:43	QNW
Chromium	4.1	1.3	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:43	QNW
Chromium, Trivalent	4.1		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 13:43	QNW
Copper	9.9	1.3	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:43	QNW
Iron	4000	32	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:43	QNW

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P500-0003-102821 | Sampled: 10/28/2021 15:20

Sample ID: 21J1967-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	51.6		% Wt	1		SM 2540G	11/1/21	11/2/21 14:59	AP
Hexavalent Chromium	ND	3.1	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	150		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.9°C	4.5		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA
Sample Description:
Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P500-0003-102821
Sampled: 10/28/2021 15:20

Sample ID: 21J1967-01

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	82.1	8.5	mg/kg	1		EPA 6010		11/3/21 20:46	PAL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P500-0306-102821 | Sampled: 10/28/2021 15:25

Sample ID: 21J1967-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.0	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:48	QNW
Chromium	3.8	1.2	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:48	QNW
Chromium, Trivalent	3.8		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 13:48	QNW
Copper	14	1.2	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:48	QNW
Iron	3500	30	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:48	QNW

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P500-0306-102821 | Sampled: 10/28/2021 15:25

Sample ID: 21J1967-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	53.4		% Wt	1		SM 2540G	11/1/21	11/2/21 14:59	AP
Hexavalent Chromium	ND	2.9	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	210		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @18.9°C	8.5		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P500-0306-102821 | Sampled: 10/28/2021 15:25

Sample ID: 21J1967-02

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	190	8.9	mg/kg	1		EPA 6010		11/3/21 20:50	PAL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P501-0003-102821 | Sampled: 10/28/2021 15:30

Sample ID: 21J1967-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:53	QNW
Chromium	4.2	1.2	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:53	QNW
Chromium, Trivalent	4.2		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 13:53	QNW
Copper	11	1.2	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:53	QNW
Iron	4000	31	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:53	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P501-0003-102821 | Sampled: 10/28/2021 15:30

Sample ID: 21J1967-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	52.7		% Wt	1		SM 2540G	11/1/21	11/2/21 15:00	AP
Hexavalent Chromium	ND	3.0	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	220		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.1°C	4.4		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P501-0003-102821
Sampled: 10/28/2021 15:30

Sample ID: 21J1967-03

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	117	9.3	mg/kg	1		EPA 6010		11/3/21 21:02	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P501-0306-102821 | Sampled: 10/28/2021 15:35

Sample ID: 21J1967-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:58	QNW
Chromium	3.0	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:58	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 13:58	QNW
Copper	7.9	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:58	QNW
Iron	4300	27	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 13:58	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P501-0306-102821 | Sampled: 10/28/2021 15:35

Sample ID: 21J1967-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.7		% Wt	1		SM 2540G	11/1/21	11/2/21 15:00	AP
Hexavalent Chromium	ND	2.6	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	220		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.2°C	4.6		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P501-0306-102821 | Sampled: 10/28/2021 15:35

Sample ID: 21J1967-04

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	77.8	9.3	mg/kg	1		EPA 6010		11/3/21 21:06	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P503-0003-102821 | Sampled: 10/28/2021 15:20

Sample ID: 21J1967-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.5	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:03	QNW
Chromium	2.7	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:03	QNW
Chromium, Trivalent	2.7		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 14:03	QNW
Copper	6.6	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:03	QNW
Iron	3300	27	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:03	QNW

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Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P503-0003-102821 | Sampled: 10/28/2021 15:20

Sample ID: 21J1967-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	59.5		% Wt	1		SM 2540G	11/1/21	11/2/21 15:00	AP
Hexavalent Chromium	ND	2.6	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	210		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.1°C	4.6		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P503-0003-102821 | Sampled: 10/28/2021 15:20

Sample ID: 21J1967-05

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	92.5	9.4	mg/kg	1		EPA 6010		11/3/21 21:10	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P503-0306-102821 | Sampled: 10/28/2021 15:25

Sample ID: 21J1967-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:07	QNW
Chromium	3.8	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:07	QNW
Chromium, Trivalent	3.8		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 14:07	QNW
Copper	7.6	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:07	QNW
Iron	3200	26	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:07	QNW

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Field Sample #: SC1-S1-SO-P503-0306-102821 | Sampled: 10/28/2021 15:25

Sample ID: 21J1967-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.2		% Wt	1		SM 2540G	11/1/21	11/2/21 15:00	AP
Hexavalent Chromium	ND	2.6	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	210		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.1°C	4.6		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P503-0306-102821 | Sampled: 10/28/2021 15:25

Sample ID: 21J1967-06

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	157	8.5	mg/kg	1		EPA 6010		11/3/21 21:14	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P506-0003-102821 | Sampled: 10/28/2021 15:30

Sample ID: 21J1967-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.3	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:12	QNW
Chromium	3.8	1.3	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:12	QNW
Chromium, Trivalent	3.8		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 14:12	QNW
Copper	8.2	1.3	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:12	QNW
Iron	4500	32	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:12	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P506-0003-102821 | Sampled: 10/28/2021 15:30

Sample ID: 21J1967-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	51.0		% Wt	1		SM 2540G	11/1/21	11/2/21 15:00	AP
Hexavalent Chromium	ND	3.0	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	200		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @18.8°C	4.5		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P506-0003-102821
Sampled: 10/28/2021 15:30

Sample ID: 21J1967-07

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	98.6	9.3	mg/kg	1		EPA 6010		11/3/21 21:18	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P506-0306-102821 | Sampled: 10/28/2021 15:35

Sample ID: 21J1967-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.4	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:17	QNW
Chromium	3.4	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:17	QNW
Chromium, Trivalent	3.4		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 14:17	QNW
Copper	6.6	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:17	QNW
Iron	4500	27	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:17	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P506-0306-102821 | Sampled: 10/28/2021 15:35

Sample ID: 21J1967-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.2		% Wt	1		SM 2540G	11/1/21	11/2/21 15:00	AP
Hexavalent Chromium	ND	2.6	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	200		mV	1	H-03	SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.5°C	4.8		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-S1-SO-P506-0306-102821
Sampled: 10/28/2021 15:35

Sample ID: 21J1967-08

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	74	8.9	mg/kg	1		EPA 6010		11/3/21 21:22	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N1-SO-CTLU-0003-102921 | Sampled: 10/29/2021 08:35

Sample ID: 21J1967-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.5	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:22	QNW
Chromium	2.6	0.90	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:22	QNW
Chromium, Trivalent	2.6		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 14:22	QNW
Copper	4.0	0.90	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:22	QNW
Iron	3100	22	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:22	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N1-SO-CTLU-0003-102921 | Sampled: 10/29/2021 08:35

Sample ID: 21J1967-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	73.6		% Wt	1		SM 2540G	11/1/21	11/2/21 15:01	AP
Hexavalent Chromium	ND	2.2	mg/Kg dry	10	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.9°C	5.1		pH Units	1	H-03	SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N1-SO-CTLU-0003-102921
Sampled: 10/29/2021 08:35

Sample ID: 21J1967-09

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	101	8.1	mg/kg	1		EPA 6010		11/3/21 21:26	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N1-SO-CTLU-0306-102921 | Sampled: 10/29/2021 08:40

Sample ID: 21J1967-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.5	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:27	QNW
Chromium	3.3	0.89	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:27	QNW
Chromium, Trivalent	3.3		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 14:27	QNW
Copper	3.4	0.89	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:27	QNW
Iron	3500	22	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 14:27	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N1-SO-CTLU-0306-102921 | Sampled: 10/29/2021 08:40

Sample ID: 21J1967-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	73.9		% Wt	1		SM 2540G	11/1/21	11/2/21 15:01	AP
Hexavalent Chromium	ND	5.3	mg/Kg dry	25	W-06	SW-846 7196A	11/3/21	11/4/21 9:10	IS
Oxidation/Reduction Potential	210		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.2°C	5.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N1-SO-CTLU-0306-102921
Sampled: 10/29/2021 08:40

Sample ID: 21J1967-10

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	31.1	9.3	mg/kg	1		EPA 6010		11/3/21 21:31	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N2-SO-CTLU-0003-102921 | Sampled: 10/29/2021 08:50

Sample ID: 21J1967-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.6	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:29	QNW
Chromium	4.1	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:29	QNW
Chromium, Trivalent	4.1		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 15:29	QNW
Copper	4.5	1.1	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:29	QNW
Iron	5000	28	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:29	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N2-SO-CTLU-0003-102921 | Sampled: 10/29/2021 08:50

Sample ID: 21J1967-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	57.9		% Wt	1		SM 2540G	11/1/21	11/2/21 15:01	AP
Hexavalent Chromium	ND	2.7	mg/Kg dry	10	MS-16, W-06	SW-846 7196A	11/4/21	11/5/21 9:00	LL
Oxidation/Reduction Potential	230		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.5°C	4.4		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N2-SO-CTLU-0003-102921 | Sampled: 10/29/2021 08:50

Sample ID: 21J1967-11

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	127	8.8	mg/kg	1		EPA 6010		11/3/21 21:35	PAL

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N2-SO-CTLU-0306-102921 | Sampled: 10/29/2021 08:55

Sample ID: 21J1967-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:34	QNW
Chromium	2.7	0.88	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:34	QNW
Chromium, Trivalent	2.7		mg/Kg	1		Tri Chrome Calc.	10/31/21	11/1/21 15:34	QNW
Copper	2.3	0.88	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:34	QNW
Iron	3800	22	mg/Kg dry	1		SW-846 6010D	10/31/21	11/1/21 15:34	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N2-SO-CTLU-0306-102921 | Sampled: 10/29/2021 08:55

Sample ID: 21J1967-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	75.9		% Wt	1		SM 2540G	11/1/21	11/2/21 15:01	AP
Hexavalent Chromium	ND	2.0	mg/Kg dry	10	W-06	SW-846 7196A	11/4/21	11/5/21 9:00	LL
Oxidation/Reduction Potential	220		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.9°C	4.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1967

Date Received: 10/29/2021

Field Sample #: SC1-N2-SO-CTLU-0306-102921 | Sampled: 10/29/2021 08:55

Sample ID: 21J1967-12

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	43.8	8.8	mg/kg	1		EPA 6010		11/3/21 21:39	PAL

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1967-01 [SC1-S1-SO-P500-0003-102821]	B293689	11/01/21
21J1967-02 [SC1-S1-SO-P500-0306-102821]	B293689	11/01/21
21J1967-03 [SC1-S1-SO-P501-0003-102821]	B293689	11/01/21
21J1967-04 [SC1-S1-SO-P501-0306-102821]	B293689	11/01/21
21J1967-05 [SC1-S1-SO-P503-0003-102821]	B293689	11/01/21
21J1967-06 [SC1-S1-SO-P503-0306-102821]	B293689	11/01/21
21J1967-07 [SC1-S1-SO-P506-0003-102821]	B293689	11/01/21
21J1967-08 [SC1-S1-SO-P506-0306-102821]	B293689	11/01/21
21J1967-09 [SC1-N1-SO-CTLU-0003-102921]	B293689	11/01/21
21J1967-10 [SC1-N1-SO-CTLU-0306-102921]	B293689	11/01/21
21J1967-11 [SC1-N2-SO-CTLU-0003-102921]	B293689	11/01/21
21J1967-12 [SC1-N2-SO-CTLU-0306-102921]	B293689	11/01/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1967-01 [SC1-S1-SO-P500-0003-102821]	B293630	20.0	10/29/21
21J1967-02 [SC1-S1-SO-P500-0306-102821]	B293630	20.0	10/29/21
21J1967-03 [SC1-S1-SO-P501-0003-102821]	B293630	20.0	10/29/21
21J1967-04 [SC1-S1-SO-P501-0306-102821]	B293630	20.0	10/29/21
21J1967-05 [SC1-S1-SO-P503-0003-102821]	B293630	20.0	10/29/21
21J1967-06 [SC1-S1-SO-P503-0306-102821]	B293630	20.0	10/29/21
21J1967-07 [SC1-S1-SO-P506-0003-102821]	B293630	20.0	10/29/21
21J1967-08 [SC1-S1-SO-P506-0306-102821]	B293630	20.0	10/29/21
21J1967-09 [SC1-N1-SO-CTLU-0003-102921]	B293630	20.0	10/29/21
21J1967-10 [SC1-N1-SO-CTLU-0306-102921]	B293630	20.0	10/29/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1967-11 [SC1-N2-SO-CTLU-0003-102921]	B293631	20.0	10/29/21
21J1967-12 [SC1-N2-SO-CTLU-0306-102921]	B293631	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1967-01 [SC1-S1-SO-P500-0003-102821]	B293659	1.53	50.0	10/31/21
21J1967-02 [SC1-S1-SO-P500-0306-102821]	B293659	1.57	50.0	10/31/21
21J1967-03 [SC1-S1-SO-P501-0003-102821]	B293659	1.55	50.0	10/31/21
21J1967-04 [SC1-S1-SO-P501-0306-102821]	B293659	1.55	50.0	10/31/21
21J1967-05 [SC1-S1-SO-P503-0003-102821]	B293659	1.54	50.0	10/31/21
21J1967-06 [SC1-S1-SO-P503-0306-102821]	B293659	1.57	50.0	10/31/21
21J1967-07 [SC1-S1-SO-P506-0003-102821]	B293659	1.54	50.0	10/31/21
21J1967-08 [SC1-S1-SO-P506-0306-102821]	B293659	1.54	50.0	10/31/21
21J1967-09 [SC1-N1-SO-CTLU-0003-102921]	B293659	1.51	50.0	10/31/21
21J1967-10 [SC1-N1-SO-CTLU-0306-102921]	B293659	1.52	50.0	10/31/21
21J1967-11 [SC1-N2-SO-CTLU-0003-102921]	B293659	1.55	50.0	10/31/21
21J1967-12 [SC1-N2-SO-CTLU-0306-102921]	B293659	1.49	50.0	10/31/21

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Sample Extraction Data

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1967-01 [SC1-S1-SO-P500-0003-102821]	B293852	2.51	100	11/03/21
21J1967-02 [SC1-S1-SO-P500-0306-102821]	B293852	2.54	100	11/03/21
21J1967-03 [SC1-S1-SO-P501-0003-102821]	B293852	2.53	100	11/03/21
21J1967-04 [SC1-S1-SO-P501-0306-102821]	B293852	2.51	100	11/03/21
21J1967-05 [SC1-S1-SO-P503-0003-102821]	B293852	2.59	100	11/03/21
21J1967-06 [SC1-S1-SO-P503-0306-102821]	B293852	2.57	100	11/03/21
21J1967-07 [SC1-S1-SO-P506-0003-102821]	B293852	2.57	100	11/03/21
21J1967-08 [SC1-S1-SO-P506-0306-102821]	B293852	2.56	100	11/03/21
21J1967-09 [SC1-N1-SO-CTLU-0003-102921]	B293852	2.52	100	11/03/21
21J1967-10 [SC1-N1-SO-CTLU-0306-102921]	B293852	2.54	100	11/03/21

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1967-11 [SC1-N2-SO-CTLU-0003-102921]	B293947	2.55	100	11/04/21
21J1967-12 [SC1-N2-SO-CTLU-0306-102921]	B293947	2.58	100	11/04/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1967-01 [SC1-S1-SO-P500-0003-102821]	B293627	20.0	10/29/21
21J1967-02 [SC1-S1-SO-P500-0306-102821]	B293627	20.0	10/29/21
21J1967-03 [SC1-S1-SO-P501-0003-102821]	B293627	20.0	10/29/21
21J1967-04 [SC1-S1-SO-P501-0306-102821]	B293627	20.0	10/29/21
21J1967-05 [SC1-S1-SO-P503-0003-102821]	B293627	20.0	10/29/21
21J1967-06 [SC1-S1-SO-P503-0306-102821]	B293627	20.0	10/29/21
21J1967-07 [SC1-S1-SO-P506-0003-102821]	B293627	20.0	10/29/21
21J1967-08 [SC1-S1-SO-P506-0306-102821]	B293627	20.0	10/29/21
21J1967-09 [SC1-N1-SO-CTLU-0003-102921]	B293627	20.0	10/29/21
21J1967-10 [SC1-N1-SO-CTLU-0306-102921]	B293627	20.0	10/29/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1967-11 [SC1-N2-SO-CTLU-0003-102921]	B293628	20.0	10/29/21
21J1967-12 [SC1-N2-SO-CTLU-0306-102921]	B293628	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1967-01 [SC1-S1-SO-P500-0003-102821]	B293659	1.53	10/31/21
21J1967-02 [SC1-S1-SO-P500-0306-102821]	B293659	1.57	10/31/21
21J1967-03 [SC1-S1-SO-P501-0003-102821]	B293659	1.55	10/31/21
21J1967-04 [SC1-S1-SO-P501-0306-102821]	B293659	1.55	10/31/21
21J1967-05 [SC1-S1-SO-P503-0003-102821]	B293659	1.54	10/31/21
21J1967-06 [SC1-S1-SO-P503-0306-102821]	B293659	1.57	10/31/21
21J1967-07 [SC1-S1-SO-P506-0003-102821]	B293659	1.54	10/31/21
21J1967-08 [SC1-S1-SO-P506-0306-102821]	B293659	1.54	10/31/21
21J1967-09 [SC1-N1-SO-CTLU-0003-102921]	B293659	1.51	10/31/21
21J1967-10 [SC1-N1-SO-CTLU-0306-102921]	B293659	1.52	10/31/21

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Sample Extraction Data

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1967-11 [SC1-N2-SO-CTLU-0003-102921]	B293659	1.55	10/31/21
21J1967-12 [SC1-N2-SO-CTLU-0306-102921]	B293659	1.49	10/31/21

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293659 - SW-846 3050B										
Blank (B293659-BLK1)				Prepared: 10/31/21 Analyzed: 11/01/21						
Arsenic	ND	3.4	mg/Kg wet							
Chromium	ND	0.68	mg/Kg wet							
Copper	ND	0.68	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
LCS (B293659-BS1)				Prepared: 10/31/21 Analyzed: 11/01/21						
Arsenic	160	9.7	mg/Kg wet	170		94.3	82.9-117.6			
Chromium	101	1.9	mg/Kg wet	101		100	82.1-117.8			
Copper	147	1.9	mg/Kg wet	149		98.6	83.9-116.1			
Iron	14700	49	mg/Kg wet	14100		104	60-139.7			
LCS Dup (B293659-BSD1)				Prepared: 10/31/21 Analyzed: 11/01/21						
Arsenic	150	10	mg/Kg wet	170		88.4	82.9-117.6	6.37	30	
Chromium	97.4	2.0	mg/Kg wet	101		96.4	82.1-117.8	3.77	30	
Copper	142	2.0	mg/Kg wet	149		95.0	83.9-116.1	3.69	30	
Iron	13400	50	mg/Kg wet	14100		95.0	60-139.7	8.99	30	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293627 - SW-846 9045C										
LCS (B293627-BS1)				Prepared & Analyzed: 10/29/21						
pH	5.96		pH Units	6.00		99.4	90-110			
LCS (B293627-BS2)				Prepared & Analyzed: 10/29/21						
pH	5.98		pH Units	6.00		99.6	90-110			
Duplicate (B293627-DUP2)	**Source: 21J1967-10**			Prepared & Analyzed: 10/29/21						
pH	5.7		pH Units		5.5			2.75	10	
Batch B293628 - SW-846 9045C										
LCS (B293628-BS1)				Prepared & Analyzed: 10/29/21						
pH	5.98		pH Units	6.00		99.7	90-110			
Duplicate (B293628-DUP1)	**Source: 21J1967-12**			Prepared & Analyzed: 10/29/21						
pH	4.7		pH Units		4.5			4.43	10	
Batch B293630 - SM2580 A										
Duplicate (B293630-DUP2)	**Source: 21J1967-10**			Prepared & Analyzed: 10/29/21						
Oxidation/Reduction Potential	214		mV		210			1.89	14.4	
Batch B293631 - SM2580 A										
Duplicate (B293631-DUP1)	**Source: 21J1967-12**			Prepared & Analyzed: 10/29/21						
Oxidation/Reduction Potential	214		mV		221			3.22	14.4	
Batch B293852 - SW-846 7196A										
Blank (B293852-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B293852-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	86	3.9	mg/Kg wet	90.1		95.4	80-120			
LCS Dup (B293852-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Hexavalent Chromium	98	3.9	mg/Kg wet	91.3		107	80-120	12.7	20	
Batch B293947 - SW-846 7196A										
Blank (B293947-BLK1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293947 - SW-846 7196A											
LCS (B293947-BS1)				Prepared: 11/04/21 Analyzed: 11/05/21							
Hexavalent Chromium	82	3.9	mg/Kg wet	91.2		90.4		80-120			
LCS Dup (B293947-BSD1)				Prepared: 11/04/21 Analyzed: 11/05/21							
Hexavalent Chromium	83	3.8	mg/Kg wet	88.9		93.3		80-120	0.467	20	
Matrix Spike (B293947-MS1)	**Source: 21J1967-11**			Prepared: 11/04/21 Analyzed: 11/05/21							
Hexavalent Chromium	10	2.7	mg/Kg dry	67.9	ND	**14.8**	*	85-115			MS-16
Matrix Spike (B293947-MS2)	**Source: 21J1967-11**			Prepared: 11/04/21 Analyzed: 11/05/21							
Hexavalent Chromium	47	2.7	mg/Kg dry	67.4	ND	**70.4**	*	85-115			MS-16
Matrix Spike (B293947-MS3)	**Source: 21J1967-11**			Prepared: 11/04/21 Analyzed: 11/05/21							
Hexavalent Chromium	240	27	mg/Kg dry	1080	ND	**22.5**	*	85-115			MS-16
Matrix Spike Dup (B293947-MSD1)	**Source: 21J1967-11**			Prepared: 11/04/21 Analyzed: 11/05/21							
Hexavalent Chromium	9.1	2.7	mg/Kg dry	67.1	ND	**13.5**	*	85-115	10.6	35	MS-16

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-03	Sample received after recommended holding time was exceeded.
MS-16	For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.
W-06	Elevated method reporting limit due to intense color of sample

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

con-test ANALYTICAL LABORATORY

2131967

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CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 2

Company Name: Mahhott
Address: 105 Central St, Stoneham MA
Phone: 781-275-6050
Project Name: SC-1
Project Location: SR-Carver, MA
Project Number: R2021054.000.004
Project Manager: S. Vetere
Con-Test Quote Name/Number: 00102623
Invoice Recipient: Accounts Recievable
Sampled By: MLB/DWM

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 11-5-2021

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: vetere@mahhott.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	# of Containers	[2] Preservation Code	[3] Container Code	Cr 6+, Cr 3+	total As, Cr, Cu, S, Fe	pH, ORP
01	SC1-S1-SO-PS00-0003-102821	10/28	1520	X	X	S		1	I	A/G	X	X	X
02	SC1-S1-SO-PS00-0306-102821		1525								X	X	X
03	SC1-S1-SO-PS01-0003-102821		1530								X	X	X
04	SC1-S1-SO-PS01-0306-102821		1535								X	X	X
05	SC1-S1-SO-PS03-0003-102821		1520								X	X	X
06	SC1-S1-SO-PS03-0306-102821		1525								X	X	X
07	SC1-S1-SO-PS06-0003-102821		1530								X	X	X
08	SC1-S1-SO-PS06-0306-102821	↓	1535	↓	↓	↓					X	X	X
09	SC1-N1-SO-CTLU-0003-102921	10/29	835								X	X	X
10	SC1-N1-SO-CTLU-0306-102921	10/29	840	↓	↓	↓		↓	↓	↓	X	X	X

ANALYSIS REQUESTED

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)
plastic bag

Comments:
level 2 data package

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:	
away	10-29 1600	
Received by: (signature)	Date/Time:	
Paul Chastenay	10-29-21 1615	
Relinquished by: (signature)	Date/Time:	
Paul Chastenay	10-29-21 1915	
Received by: (signature)	Date/Time:	
[illegible] 10/29/21	0915	
Relinquished by: (signature)	Date/Time:	
[illegible] 10/29/21	2035	
Received by: (signature) 5.4, 2.4.2.9	Date/Time:	
[illegible] 4.2°	10/29/21 2035	

Detection Limit Requirements
MA
CT
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY
www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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con-test ANALYTICAL LABORATORY

2119607

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Wabtec
Address:
Phone:
Project Name: SC-1
Project Location: Carver MA
Project Number: R2021054.000.004
Project Manager: S. Vetere
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: MLB

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 11-5-2021

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: vetere@wabtec.com
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	Cr6T	Cr3T	total As,Cr,Cu,Se,Fe	pH, ORP	# of Containers	[2] Preservation Code	[3] Container Code
												1	1	1
												I	I	I
												N/O	N/O	N/O
11	SC1-N2-SO-CTLV-0003-102921	10/29	850	X	X	SO		X	X	X				
12	SC1-N2-SO-CTLV-0306-102921	10/29	855	X	X	SO		X	X	X				

Comments:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals Samples
☐ Field Filtered
☐ Lab to Filter

Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

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[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

	Date/Time:
Relinquished by: (signature)	10/29 1600
Received by: (signature)	10-29-21 16[illegible]
Relinquished by: (signature)	10-29-21 19[illegible]
Received by: (signature)	10/29/21 1915
Relinquished by: (signature)	10/29/21 2035
Received by: (signature)	10/29/21 2035

Detection Limit Requirements
MA
RCP
Other

Special Requirements
☐ MA MCP Required
☐ MCP Certification Form Required
☐ CT RCP Required
☐ RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY
www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Macbeth

Received By RLF Date 10/29/21 Time 2035

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp -5.4, 2.4, 2.9, 4.2c

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Cassie

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid NA Base NA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	8
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	12
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag	4	Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

PH/ORP sampled 10/28 received past hold.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Mike Bloom

REPORT DATE: 12/8/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: P2021207

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1843

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N6-SO-P100-0003-102821	21J1843-01	Soil		Unk	
SC1-N6-SO-P100-0306-102821	21J1843-02	Soil		Unk	
SC1-N6-SO-P101-0003-102821	21J1843-03	Soil		Unk	
SC1-N6-SO-P101-0306-102821	21J1843-04	Soil		Unk	
SC1-N6-SO-P103-0003-102821	21J1843-05	Soil		Unk	
SC1-N6-SO-P103-0306-102821	21J1843-06	Soil		Unk	
SC1-N6-SO-P106-0003-102821	21J1843-07	Soil		Unk	
SC1-N6-SO-P106-0306-102821	21J1843-08	Soil		Unk	
SC1-N6-SO-P200-0003-102821	21J1843-09	Soil		Unk	
SC1-N6-SO-P200-0306-102821	21J1843-10	Soil		Unk	
SC1-N6-SO-P201-0003-102821	21J1843-11	Soil		Unk	
SC1-N6-SO-P201-0306-102821	21J1843-12	Soil		Unk	
SC1-N6-SO-P203-0003-102821	21J1843-13	Soil		Unk	
SC1-N6-SO-P203-0306-102821	21J1843-14	Soil		Unk	
SC1-N6-SO-P206-0003-102821	21J1843-15	Soil		Unk	
SC1-N6-SO-P206-0306-102821	21J1843-16	Soil		Unk	
SC1-N6-SO-P300-0003-102821	21J1843-17	Soil		Unk	
SC1-N6-SO-P300-0306-102821	21J1843-18	Soil		Unk	
SC1-N6-SO-P301-0003-102821	21J1843-19	Soil		Unk	
SC1-N6-SO-P301-0306-102821	21J1843-20	Soil		Unk	
SC1-N6-SO-P303-0003-102821	21J1843-21	Soil		Unk	
SC1-N6-SO-P303-0306-102821	21J1843-22	Soil		Unk	
SC1-N6-SO-P306-0003-102821	21J1843-23	Soil		Unk	
SC1-N6-SO-P306-0306-102821	21J1843-24	Soil		Unk	
SC1-N6-SO-P400-0003-102821	21J1843-25	Soil		Unk	
SC1-N6-SO-P400-0306-102821	21J1843-26	Soil		Unk	
SC1-N6-SO-P401-0003-102821	21J1843-27	Soil		Unk	
SC1-N6-SO-P401-0306-102821	21J1843-28	Soil		Unk	
SC1-N6-SO-P403-0003-102821	21J1843-29	Soil		Unk	
SC1-N6-SO-P403-0306-102821	21J1843-30	Soil		Unk	
SC1-N6-SO-P406-0003-102821	21J1843-31	Soil		Unk	
SC1-N6-SO-P406-0306-102821	21J1843-32	Soil		Unk	

BROOKS APPLIED LABS
18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • info@brooksapplied.com

December 7, 2021

Pace Analytical - Con-Test Labs
ATTN: Kaitlyn Feliciano
39 Spruce Street
East Longmeadow, MA 01028
kaitlyn.feliciano@pacelabs.com

RE: Project CON-EL2101 Client Project: 21J1843

Dear Kaitlyn Feliciano,

On October 30, 2021, Brooks Applied Labs (BAL) received thirty-two (32) soil samples. Per client request, only eight of the total samples received were logged-in for the analyses of total recoverable arsenic (As), arsenic speciation [As(III), As(V), DMA, and MMA), and % total solids (%TS) according to the chain-of-custody forms. All samples were received and stored according to BAL SOPs and EPA methodology.

Total Arsenic Quantitation by ICP-QQQ-MS
All samples were digested via modified EPA Method 3050B with a mixture of concentrated nitric acid, hydrochloric acid, and hydrogen peroxide. Trace metals were analyzed using inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). The ICP-QQQ-MS uses advanced interference removal techniques to ensure accuracy of the sample results. For more information, please visit the *Interference Reduction Technology* section on our website,www.brooksapplied.com.

Arsenic Speciation Quantitation by IC-ICP-CRC-MS
Separate aliquots of each solid sample for arsenic speciation were prepared using phosphoric acid and alkaline phosphate solutions designed to target adsorbed arsenic species. The resulting extracts were analyzed using inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS). Sample and quality control results were evaluated to determine the most representative results to report for each arsenic species. After careful review of both sets of data, the results from the phosphoric acid were reported for all samples within this work order for all species.

In instances where the native sample result and/or the associated duplicate (DUP) result were below the MDL the RPD was not calculated (**N/C**).

The duplicate (DUP) B213110-DUP5 performed on *2111017-02* had a relative percent difference (RPD) above the acceptance limit (132%) for As(III). The duplicate (DUP) B213110-DUP4 was performed on the same sample *2111017-02* with RPD recoveries within the acceptable method control limits. B213110-DUP5 was reported with no qualifiers because of the passing duplicate and because the native and duplicate results are just outside secondary criteria (within 5x the MRL and within the MRL of each other).

The matrix spike (MS) B213110-MS4 and matrix spike duplicate (MSD) B213110-MSD4 performed on *2111015-02,* and the matrix spike (MS) B213110-MS8 and matrix spike duplicate (MSD) B213110-MSD8 performed on *2111017-09* had As(III) recoveries below the acceptance limit due to oxidation of As(III) to

As(V). The mass balance was calculated for all samples. The matrix spike (MS) B213110-MS4 and matrix spike duplicate (MSD) B213110-MSD4 had mass balance As recoveries of 92% and 96% respectively. The matrix spike (MS) B213110-MS8 and matrix spike duplicate (MSD) B213110-MSD8 had mass balance As recoveries of 98% and 94% respectively. The As(III) result for samples *2111015-02 and 2111017-09* were qualified **N** for low bias.

Total Solids
Solid samples were homogenized, and an aliquot of each sample was measured into a pre-weighed vessel and dried in an oven for at least 12 hours. The vessels were removed from the oven, weighed again, and the percent of dried solid material was calculated.

The results were not method blank corrected, as described in the calculations section of the relevant BAL SOP(s), and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

All data was reported without further qualification and all other associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report. This report should be used in its entirety for interpretation of results. Please feel free to contact us if you have any questions regarding this report.

Sincerely,



Amy Goodall
Project Manager
Brooks Applied Labs
amy@brooksapplied.com

Report Information

Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations /certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/> or review Tables 1 and 2 in our Accreditation Information. Results reported relate only to the samples listed in the report.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

AR	as received
BAL	Brooks Applied Labs
BLK	method blank
BS	blank spike
CAL	calibration standard
CCB	continuing calibration blank
CCV	continuing calibration verification
COC	chain of custody record
D	dissolved fraction
DUP	duplicate
IBL	instrument blank
ICV	initial calibration verification
MDL	method detection limit
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
ND	non-detect
NR	non-reportable
N/C	not calculated
PS	post preparation spike
REC	percent recovery
RPD	relative percent difference
SCV	secondary calibration verification
SOP	standard operating procedure
SRM	reference material
T	total fraction
TR	total recoverable fraction

Definition of Data Qualifiers

(Effective 3/23/2020)

E	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H	Holding time and/or preservation requirements not met. Please see narrative for explanation.
J	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
J-1	Estimated value. A full explanation is presented in the narrative.
M	Duplicate precision (RPD) was not within acceptance criteria. Please see narrative for explanation.
N	Spike recovery was not within acceptance criteria. Please see narrative for explanation.
R	Rejected, unusable value. A full explanation is presented in the narrative.
U	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.
Z	Holding time and/or preservation requirements not established for this method; however, BAL recommendations for holding time were not followed. Please see narrative for explanation.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.

Accreditation Information

Table 1. Accredited method/matrix/analytes for TNI

Issued by: State of Florida Dept. of Health (The NELAC Institute 2016 Standard)
Issued on: July 1, 2021; Valid to: June 30, 2022
Certificate Number: E87982-37

Method	Matrix	TNI Accredited Analyte(s)
EPA 1638	Non-Potable Waters	Ag, Cd, Cu, Ni, Pb, Sb, Se, Tl, Zn
EPA 200.8	Non-Potable Waters	Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
EPA 6020	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
	Solids/Chemicals & Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
BAL-5000	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn, Hardness
	Solids/Chemicals	Ag, As, B, Be, Cd, Co, Cr, Cu, Pb, Mo, Ni, Sb, Se, Sn, Sr, Tl, V, Zn
	Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Tl, V, Zn
EPA 1640	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn
EPA 1631E	Non-Potable Waters, Solids/Chemicals & Biological	Total Mercury
EPA 1630	Non-Potable Waters	Methyl Mercury
BAL-3200	Solids/Chemicals & Biological	Methyl Mercury
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs
BAL-4201	Non-Potable Waters	Se(IV), Se(VI)
BAL-4300	Non-Potable Waters Solid/Chemicals	Cr(VI)
SM2340B	Non-Potable Waters	Hardness

Accreditation Information

Table 2. Accredited method/matrix/analytes for ISO (1), Non-Governmental TNI (2), and DoD/DOE (3)

Issued by: ANAB

Issued on: September 21, 2021; Valid to: March 30, 2024

Method	Matrix	ISO and Non-Gov. TNI Accredited Analyte(s)	DoD/DOE Accredited Analytes
EPA 1638 Mod EPA 200.8 Mod EPA 6020 Mod BAL-5000	Non-Potable Waters	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn	Ag, Al, As, Ba, Ca, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Ni, Sb, Se, V, Zn
	Solids/Chemicals & Biological	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, V, Zn Hg (Biological Only)	Not Accredited
EPA 1640 Mod	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn Ag, As, Cr, Co, Se, Tl, V (ISO Only)	Not Accredited
EPA 1631E Mod BAL-3100	Non-Potable Waters, Solids/Chemicals & Biological/Food	Total Mercury	Total Mercury
EPA 1630 Mod BAL-3200	Non-Potable Waters, Solids/Chemicals Biological	Methyl Mercury	Methyl Mercury (excluding Solids/Chemicals)
EPA 1632A Mod BAL-3300	Non-Potable Waters	Inorganic Arsenic (ISO Only)	Not Accredited
	Biological/Food Solids/Chemicals	Inorganic Arsenic (ISO Only)	Not Accredited
AOAC 2015.01 Mod BAL-5000	Food	As, Cd, Hg, Pb	Not Accredited
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs	Not Accredited
	Biological by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)	Not Accredited
BAL-4101	Food by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)	Not Accredited
BAL-4201	Non-Potable Waters	Se(IV), Se(VI), SeCN, SeMet	Not Accredited
BAL-4300	Non-Potable Waters, Solid/Chemicals	Cr(VI)	Cr(VI)
SM 3500-Fe BAL-4500	Non-Potable Waters	Fe, Fe(II) (ISO Only)	Not Accredited
SM2340B	Non-Potable Waters	Hardness	Hardness
SM 2540G BAL-0501	Solids/Chemicals & Biological	% Dry Weight	% Dry Weight

(1) ISO/IEC 17025:2017 – Certificate Number ADE-1447.02

(2) Non-Governmental NELAC Institute 2016 Standard – Certificate Number ADE-1447.01

(3) Department of Defense/Energy Consolidated Quality Systems Manual v. 5.3 – Certificate Numbers ADE-1447 for DoD, ADE-1447.03 for DOE.

Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
21J1843-01	2111006-01	Soil	Sample	10/28/2021	10/30/2021
21J1843-02	2111006-02	Soil	Sample	10/28/2021	10/30/2021
21J1843-03	2111006-03	Soil	Sample	10/28/2021	10/30/2021
21J1843-04	2111006-04	Soil	Sample	10/28/2021	10/30/2021
21J1843-05	2111006-05	Soil	Sample	10/28/2021	10/30/2021
21J1843-06	2111006-06	Soil	Sample	10/28/2021	10/30/2021
21J1843-07	2111006-07	Soil	Sample	10/28/2021	10/30/2021
21J1843-08	2111006-08	Soil	Sample	10/28/2021	10/30/2021
21J1843-09	2111006-09	Soil	Sample	10/28/2021	10/30/2021
21J1843-10	2111006-10	Soil	Sample	10/28/2021	10/30/2021
21J1843-11	2111006-11	Soil	Sample	10/28/2021	10/30/2021
21J1843-12	2111006-12	Soil	Sample	10/28/2021	10/30/2021
21J1843-13	2111006-13	Soil	Sample	10/28/2021	10/30/2021
21J1843-14	2111006-14	Soil	Sample	10/28/2021	10/30/2021
21J1843-15	2111006-15	Soil	Sample	10/28/2021	10/30/2021
21J1843-16	2111006-16	Soil	Sample	10/28/2021	10/30/2021
21J1843-17	2111006-17	Soil	Sample	10/28/2021	10/30/2021
21J1843-18	2111006-18	Soil	Sample	10/28/2021	10/30/2021
21J1843-19	2111006-19	Soil	Sample	10/28/2021	10/30/2021
21J1843-20	2111006-20	Soil	Sample	10/28/2021	10/30/2021
21J1843-21	2111006-21	Soil	Sample	10/28/2021	10/30/2021
21J1843-22	2111006-22	Soil	Sample	10/28/2021	10/30/2021
21J1843-23	2111006-23	Soil	Sample	10/28/2021	10/30/2021
21J1843-24	2111006-24	Soil	Sample	10/28/2021	10/30/2021
21J1843-25	2111006-25	Soil	Sample	10/28/2021	10/30/2021
21J1843-26	2111006-26	Soil	Sample	10/28/2021	10/30/2021
21J1843-27	2111006-27	Soil	Sample	10/28/2021	10/30/2021
21J1843-28	2111006-28	Soil	Sample	10/28/2021	10/30/2021
21J1843-29	2111006-29	Soil	Sample	10/28/2021	10/30/2021
21J1843-30	2111006-30	Soil	Sample	10/28/2021	10/30/2021
21J1843-31	2111006-31	Soil	Sample	10/28/2021	10/30/2021
21J1843-32	2111006-32	Soil	Sample	10/28/2021	10/30/2021

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
%TS	Soil/Sediment	SOP BAL-0501	11/16/2021	11/17/2021	B213105	N/A
As	Soil/Sediment	EPA 6020B Mod	11/16/2021	11/18/2021	B213104	S211331
As(III)	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
As(V)	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
DMAs	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
MMAs	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
21J1843-01										
2111006-01	%TS	Soil	NA	67.85		0.01	0.04	%	B213105	N/A
2111006-01	As	Soil	dry	3.71		0.061	0.142	mg/kg	B213104	S211331
2111006-01	As(III)	Soil	dry	0.028		0.002	0.017	mg/kg	B213110	S211330
2111006-01	As(V)	Soil	dry	1.17		0.011	0.021	mg/kg	B213110	S211330
2111006-01	DMAs	Soil	dry	≤ 0.004	U	0.004	0.018	mg/kg	B213110	S211330
2111006-01	MMAs	Soil	dry	≤ 0.002	U	0.002	0.018	mg/kg	B213110	S211330
21J1843-02										
2111006-02	%TS	Soil	NA	79.36		0.01	0.05	%	B213105	N/A
2111006-02	As	Soil	dry	1.26		0.053	0.123	mg/kg	B213104	S211331
2111006-02	As(III)	Soil	dry	0.011	J	0.002	0.014	mg/kg	B213110	S211330
2111006-02	As(V)	Soil	dry	0.517		0.009	0.018	mg/kg	B213110	S211330
2111006-02	DMAs	Soil	dry	≤ 0.003	U	0.003	0.015	mg/kg	B213110	S211330
2111006-02	MMAs	Soil	dry	≤ 0.002	U	0.002	0.015	mg/kg	B213110	S211330
21J1843-09										
2111006-09	%TS	Soil	NA	50.02		0.02	0.06	%	B213105	N/A
2111006-09	As	Soil	dry	3.06		0.089	0.207	mg/kg	B213104	S211331
2111006-09	As(III)	Soil	dry	0.103		0.002	0.023	mg/kg	B213110	S211330
2111006-09	As(V)	Soil	dry	1.57		0.014	0.028	mg/kg	B213110	S211330
2111006-09	DMAs	Soil	dry	≤ 0.005	U	0.005	0.024	mg/kg	B213110	S211330
2111006-09	MMAs	Soil	dry	≤ 0.002	U	0.002	0.024	mg/kg	B213110	S211330
21J1843-10										
2111006-10	%TS	Soil	NA	69.39		0.01	0.05	%	B213105	N/A
2111006-10	As	Soil	dry	2.50		0.058	0.135	mg/kg	B213104	S211331
2111006-10	As(III)	Soil	dry	0.203		0.002	0.017	mg/kg	B213110	S211330
2111006-10	As(V)	Soil	dry	1.62		0.010	0.021	mg/kg	B213110	S211330
2111006-10	DMAs	Soil	dry	0.005	J	0.004	0.018	mg/kg	B213110	S211330
2111006-10	MMAs	Soil	dry	≤ 0.002	U	0.002	0.018	mg/kg	B213110	S211330
21J1843-17										
2111006-17	%TS	Soil	NA	60.96		0.02	0.05	%	B213105	N/A
2111006-17	As	Soil	dry	2.52		0.071	0.165	mg/kg	B213104	S211331
2111006-17	As(III)	Soil	dry	0.077		0.002	0.019	mg/kg	B213110	S211330
2111006-17	As(V)	Soil	dry	1.80		0.011	0.023	mg/kg	B213110	S211330
2111006-17	DMAs	Soil	dry	≤ 0.004	U	0.004	0.020	mg/kg	B213110	S211330
2111006-17	MMAs	Soil	dry	≤ 0.002	U	0.002	0.020	mg/kg	B213110	S211330

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
21J1843-18										
2111006-18	%TS	Soil	NA	71.43		0.009	0.03	%	B213105	N/A
2111006-18	As	Soil	dry	1.42		0.062	0.145	mg/kg	B213104	S211331
2111006-18	As(III)	Soil	dry	0.044		0.002	0.016	mg/kg	B213110	S211330
2111006-18	As(V)	Soil	dry	0.588		0.010	0.020	mg/kg	B213110	S211330
2111006-18	DMAs	Soil	dry	≤ 0.004	U	0.004	0.017	mg/kg	B213110	S211330
2111006-18	MMAs	Soil	dry	≤ 0.002	U	0.002	0.017	mg/kg	B213110	S211330
21J1843-25										
2111006-25	%TS	Soil	NA	65.91		0.01	0.05	%	B213105	N/A
2111006-25	As	Soil	dry	5.99		0.069	0.161	mg/kg	B213104	S211331
2111006-25	As(III)	Soil	dry	0.381		0.002	0.017	mg/kg	B213110	S211330
2111006-25	As(V)	Soil	dry	3.66		0.011	0.021	mg/kg	B213110	S211330
2111006-25	DMAs	Soil	dry	0.093		0.004	0.018	mg/kg	B213110	S211330
2111006-25	MMAs	Soil	dry	≤ 0.002	U	0.002	0.018	mg/kg	B213110	S211330
21J1843-26										
2111006-26	%TS	Soil	NA	76.73		0.009	0.03	%	B213105	N/A
2111006-26	As	Soil	dry	1.90		0.059	0.138	mg/kg	B213104	S211331
2111006-26	As(III)	Soil	dry	0.008	J	0.002	0.014	mg/kg	B213110	S211330
2111006-26	As(V)	Soil	dry	0.540		0.009	0.018	mg/kg	B213110	S211330
2111006-26	DMAs	Soil	dry	≤ 0.003	U	0.003	0.015	mg/kg	B213110	S211330
2111006-26	MMAs	Soil	dry	≤ 0.002	U	0.002	0.015	mg/kg	B213110	S211330

Accuracy & Precision Summary

Batch: B213104
Lab Matrix: Soil/Sediment
Method: EPA 6020B Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213104-BS1	**Blank Spike, (2116054)**						
	As		50.00	42.62	mg/kg	85% 75-125	
B213104-BS2	**Blank Spike, (2116054)**						
	As		50.00	42.05	mg/kg	84% 75-125	
B213104-SRM1	**Reference Material (2005027, CRM052-50G Loamy Clay)**						
	As		202.0	175.9	mg/kg	87% 75-125	
B213104-SRM2	**Reference Material (2005027, CRM052-50G Loamy Clay)**						
	As		202.0	171.7	mg/kg	85% 75-125	
B213104-DUP1	**Duplicate, (2111006-10)**						
	As	2.500		3.261	mg/kg		26% 30
B213104-MS1	**Matrix Spike, (2111006-10)**						
	As	2.500	70.75	62.49	mg/kg	85% 70-130	
B213104-MSD1	**Matrix Spike Duplicate, (2111006-10)**						
	As	2.500	66.07	58.06	mg/kg	84% 70-130	0.8% 30
B213104-DUP2	**Duplicate, (2111014-03)**						
	As	3.155		2.949	mg/kg		7% 30
B213104-MS2	**Matrix Spike, (2111014-03)**						
	As	3.155	60.46	54.11	mg/kg	84% 70-130	
B213104-MSD2	**Matrix Spike Duplicate, (2111014-03)**						
	As	3.155	60.97	53.97	mg/kg	83% 70-130	1% 30
B213104-DUP3	**Duplicate, (2111016-17)**						
	As	2.047		2.190	mg/kg		7% 30

Accuracy & Precision Summary

Batch: B213104
Lab Matrix: Soil/Sediment
Method: EPA 6020B Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213104-MS3	**Matrix Spike, (2111016-17)**						
	As	2.047	55.08	48.39	mg/kg	84% 70-130	
B213104-MSD3	**Matrix Spike Duplicate, (2111016-17)**						
	As	2.047	55.57	47.79	mg/kg	82% 70-130	2% 30
B213104-DUP4	**Duplicate, (2111017-02)**						
	As	1.917		1.638	mg/kg		16% 30
B213104-MS4	**Matrix Spike, (2111017-02)**						
	As	1.917	66.52	58.45	mg/kg	85% 70-130	
B213104-MSD4	**Matrix Spike Duplicate, (2111017-02)**						
	As	1.917	67.17	59.52	mg/kg	86% 70-130	0.9% 30

Accuracy & Precision Summary

Batch: B213105
Lab Matrix: Soil/Sediment
Method: SOP BAL-0501

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213105-DUP1	**Duplicate, (2111006-10)**						
	%TS	69.39		69.06	%		0.5% 15
B213105-DUP2	**Duplicate, (2111014-03)**						
	%TS	81.57		81.45	%		0.2% 15
B213105-DUP3	**Duplicate, (2111016-17)**						
	%TS	89.00		87.17	%		2% 15
B213105-DUP4	**Duplicate, (2111017-02)**						
	%TS	66.84		61.96	%		8% 15

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-BS1	**Blank Spike, As (V) (1941027)**						
	As(V)		9.706	8.361	mg/kg	86% 75-125	
B213110-BS2	**Blank Spike, As (III), MMA, DMA (2146001)**						
	As(III)		10.00	9.329	mg/kg	93% 75-125	
	DMAs		10.42	11.08	mg/kg	106% 75-125	
	MMAs		10.00	9.943	mg/kg	99% 75-125	
B213110-DUP1	**Duplicate, (2111006-17)**						
	As(III)	0.077		0.091	mg/kg		17% 25
	As(V)	1.802		2.155	mg/kg		18% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS1	**Matrix Spike, As (V) (2111006-17)**						
	As(V)	1.802	15.24	14.03	mg/kg	80% 75-125	
B213110-MS2	**Matrix Spike, As (III), MMA, DMA (2111006-17)**						
	As(III)	0.077	16.37	13.50	mg/kg	82% 75-125	
	DMAs	ND	17.06	16.30	mg/kg	96% 75-125	
	MMAs	ND	16.37	15.04	mg/kg	92% 75-125	
B213110-MSD1	**Matrix Spike Duplicate, As (V) (2111006-17)**						
	As(V)	1.802	15.12	14.02	mg/kg	81% 75-125	0.7% 25
B213110-MSD2	**Matrix Spike Duplicate, As (III), MMA, DMA (2111006-17)**						
	As(III)	0.077	15.88	13.84	mg/kg	87% 75-125	6% 25
	DMAs	ND	16.55	16.62	mg/kg	100% 75-125	5% 25
	MMAs	ND	15.88	15.46	mg/kg	97% 75-125	6% 25
B213110-DUP2	**Duplicate, (2111015-02)**						
	As(III)	ND		ND	mg/kg		N/C 25
	As(V)	0.111		0.114	mg/kg		3% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-MS3	**Matrix Spike, As (V) (2111015-02)**						
	As(V)	0.111	11.59	10.70	mg/kg	91% 75-125	
B213110-MS4	**Matrix Spike, As (III), MMA, DMA (2111015-02)**						
	As(III)	ND	11.82	5.843	mg/kg	*49%* 75-125	
	DMAs	ND	12.31	11.85	mg/kg	96% 75-125	
	MMAs	ND	11.82	10.82	mg/kg	92% 75-125	
B213110-MSD3	**Matrix Spike Duplicate, As (V) (2111015-02)**						
	As(V)	0.111	11.17	10.17	mg/kg	90% 75-125	2% 25
B213110-MSD4	**Matrix Spike Duplicate, As (III), MMA, DMA (2111015-02)**						
	As(III)	ND	11.44	5.623	mg/kg	*49%* 75-125	0.6% 25
	DMAs	ND	11.92	12.06	mg/kg	101% 75-125	5% 25
	MMAs	ND	11.44	11.01	mg/kg	96% 75-125	5% 25
B213110-DUP3	**Duplicate, (2111016-25)**						
	As(III)	0.009		0.009	mg/kg		3% 25
	As(V)	0.304		0.368	mg/kg		19% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS5	**Matrix Spike, As (V) (2111016-25)**						
	As(V)	0.304	12.95	11.00	mg/kg	83% 75-125	
B213110-MS6	**Matrix Spike, As (III), MMA, DMA (2111016-25)**						
	As(III)	0.009	13.27	11.34	mg/kg	85% 75-125	
	DMAs	ND	13.82	13.95	mg/kg	101% 75-125	
	MMAs	ND	13.27	12.87	mg/kg	97% 75-125	
B213110-MSD5	**Matrix Spike Duplicate, As (V) (2111016-25)**						
	As(V)	0.304	13.05	11.12	mg/kg	83% 75-125	0.3% 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-MSD6	**Matrix Spike Duplicate, As (III), MMA, DMA (2111016-25)**						
	As(III)	0.009	13.35	11.52	mg/kg	86% 75-125	0.9% 25
	DMAs	ND	13.92	13.90	mg/kg	100% 75-125	1% 25
	MMAs	ND	13.35	12.88	mg/kg	96% 75-125	0.6% 25
B213110-DUP4	**Duplicate, (2111017-09)**						
	As(III)	0.041		0.035	mg/kg		17% 25
	As(V)	0.277		0.256	mg/kg		8% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-DUP5	**Duplicate, (2111017-09)**						
	As(III)	0.041		0.008	mg/kg		*132%* 25
	As(V)	0.277		0.298	mg/kg		7% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS7	**Matrix Spike, As (V) (2111017-09)**						
	As(V)	0.277	11.58	10.34	mg/kg	87% 75-125	
B213110-MS8	**Matrix Spike, As (III), MMA, DMA (2111017-09)**						
	As(III)	0.041	12.36	6.383	mg/kg	*51%* 75-125	
	DMAs	ND	12.88	13.24	mg/kg	103% 75-125	
	MMAs	ND	12.36	12.00	mg/kg	97% 75-125	
B213110-MSD7	**Matrix Spike Duplicate, As (V) (2111017-09)**						
	As(V)	0.277	11.93	10.91	mg/kg	89% 75-125	3% 25
B213110-MSD8	**Matrix Spike Duplicate, As (III), MMA, DMA (2111017-09)**						
	As(III)	0.041	12.57	7.696	mg/kg	*61%* 75-125	17% 25
	DMAs	ND	13.10	12.80	mg/kg	98% 75-125	5% 25
	MMAs	ND	12.57	11.70	mg/kg	93% 75-125	4% 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-PS1	**Post Spike, (2111017-09)**						
	As(III)	0.041	0.8068	0.805	mg/kg	95% 75-125	
	As(V)	0.277	0.7497	1.033	mg/kg	101% 75-125	
	DMAs	ND	0.7721	0.772	mg/kg	100% 75-125	
	MMAs	ND	0.7721	0.772	mg/kg	100% 75-125	

Method Blanks & Reporting Limits

Batch: B213104
Matrix: Soil/Sediment
Method: EPA 6020B Mod
Analyte: As

Sample	Result	Units
B213104-BLK1	0.001	mg/kg
B213104-BLK2	0.002	mg/kg
B213104-BLK3	0.001	mg/kg
B213104-BLK4	-0.00005	mg/kg

Average: 0.001
Limit: 0.105

MDL: 0.045
MRL: 0.105

Method Blanks & Reporting Limits

Batch: B213105
Matrix: Soil/Sediment
Method: SOP BAL-0501
Analyte: %TS

Sample	Result	Units
B213105-BLK1	-0.004	%
B213105-BLK2	0.04	%

Average: 0.02
Limit: 0.05

MDL: 0.01
MRL: 0.05

Method Blanks & Reporting Limits

Batch: B213110
Matrix: Soil/Sediment
Method: SOP BAL-4100
Analyte: As(III)

Sample	Result	Units
B213110-BLK1	0.0007	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.012
MDL: 0.001
MRL: 0.012

Analyte: As(V)

Sample	Result	Units
B213110-BLK1	0.006	mg/kg
B213110-BLK2	0.006	mg/kg
B213110-BLK3	0.006	mg/kg
B213110-BLK4	0.005	mg/kg

Average: 0.006
Limit: 0.015
MDL: 0.007
MRL: 0.014

Analyte: DMAs

Sample	Result	Units
B213110-BLK1	0.00	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.013
MDL: 0.003
MRL: 0.012

Method Blanks & Reporting Limits

Analyte: MMAs

Sample	Result	Units
B213110-BLK1	0.00	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.013

Standard Deviation: 0.000
Limit: 0.001

MDL: 0.001
MRL: 0.012

Sample Containers

Lab ID: 2111006-01
Sample: 21J1843-01
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-02
Sample: 21J1843-02
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-03
Sample: 21J1843-03
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-04
Sample: 21J1843-04
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-05
Sample: 21J1843-05
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-06
Sample: 21J1843-06
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Sample Containers

Lab ID: 2111006-07
Sample: 21J1843-07
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-08
Sample: 21J1843-08
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-09
Sample: 21J1843-09
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-10
Sample: 21J1843-10
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-11
Sample: 21J1843-11
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-12
Sample: 21J1843-12
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Sample Containers

Lab ID: 2111006-13
Sample: 21J1843-13
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-14
Sample: 21J1843-14
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-15
Sample: 21J1843-15
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-16
Sample: 21J1843-16
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-17
Sample: 21J1843-17
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-18
Sample: 21J1843-18
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Sample Containers

Lab ID: 2111006-19
Sample: 21J1843-19
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-20
Sample: 21J1843-20
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-21
Sample: 21J1843-21
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-22
Sample: 21J1843-22
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-23
Sample: 21J1843-23
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-24
Sample: 21J1843-24
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Sample Containers

Lab ID: 2111006-25
Sample: 21J1843-25
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-26
Sample: 21J1843-26
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-27
Sample: 21J1843-27
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-28
Sample: 21J1843-28
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-29
Sample: 21J1843-29
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-30
Sample: 21J1843-30
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Sample Containers

Lab ID: 2111006-31
Sample: 21J1843-31
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Lab ID: 2111006-32
Sample: 21J1843-32
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 10/30/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	4 oz	N/A	None	N/A	N/A	Cooler - 2111006

Shipping Containers

Cooler - 2111006

Received: October 30, 2021 11:43
Tracking No: 7750 7145 4192 via
Coolant Type: Ice
Temperature: 0.3 °C

Description: Cooler
Damaged in transit? No
Returned to client? No
Comments: IR#30

Custody seals present? No
Custody seals intact? No
COC present? Yes

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21J1843

SENDING LABORATORY:

Con-Test, a Pace Analytical Laboratory
39 Spruce Street
East Longmeadow, MA 01028
Phone: 413.525.2332
Fax: 413.525.6405
Project Manager: Kaitlyn A. Feliciano

RECEIVING LABORATORY:

Brooks Applied Labs
18804 North Creek Parkway, Suite 100
Bothell, WA 98011
Phone :(206) 632-6206
Fax:

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21J1843-01	**Soil**	**Sampled:10/28/21 09:40**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 09:40		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-02	**Soil**	**Sampled:10/28/21 09:45**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 09:45		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-03	**Soil**	**Sampled:10/28/21 10:15**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 10:15		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-04	**Soil**	**Sampled:10/28/21 10:20**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 10:20		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-05	**Soil**	**Sampled:10/28/21 10:05**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 10:05		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-06	**Soil**	**Sampled:10/28/21 10:10**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 10:10		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
[signature]	10/29/21 1600		
S. Z.	10/30/21 11:43		

Released By | Date | Received By | Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21J1843

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21J1843-07	**Soil**	**Sampled:10/28/21 09:50**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 09:50		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-08	**Soil**	**Sampled:10/28/21 09:55**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 09:55		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-09	**Soil**	**Sampled:10/28/21 11:10**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:10		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-10	**Soil**	**Sampled:10/28/21 11:15**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:15		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-11	**Soil**	**Sampled:10/28/21 11:30**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:30		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-12	**Soil**	**Sampled:10/28/21 11:35**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:35		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-13	**Soil**	**Sampled:10/28/21 11:40**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:40		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-14	**Soil**	**Sampled:10/28/21 11:45**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:45		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
	10/29/21 1606	S. Z.	10/30/21 11:43
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21J1843

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21J1843-15	**Soil**	**Sampled:10/28/21 11:50**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:50		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-16	**Soil**	**Sampled:10/28/21 11:55**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 11:55		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-17	**Soil**	**Sampled:10/28/21 12:20**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:20		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-18	**Soil**	**Sampled:10/28/21 12:25**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:25		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-19	**Soil**	**Sampled:10/28/21 12:45**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:45		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-20	**Soil**	**Sampled:10/28/21 12:50**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:50		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-21	**Soil**	**Sampled:10/28/21 12:45**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:45		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-22	**Soil**	**Sampled:10/28/21 12:50**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:50		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
[signature]	10/29/21 1600	S. E.	10/30/21 11:43
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21J1843

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21J1843-23	**Soil**	**Sampled:10/28/21 12:30**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:30		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-24	**Soil**	**Sampled:10/28/21 12:35**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 12:35		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-25	**Soil**	**Sampled:10/28/21 13:20**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:20		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-26	**Soil**	**Sampled:10/28/21 13:25**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:25		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-27	**Soil**	**Sampled:10/28/21 13:30**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:30		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-28	**Soil**	**Sampled:10/28/21 13:35**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:35		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-29	**Soil**	**Sampled:10/28/21 13:20**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:20		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-30	**Soil**	**Sampled:10/28/21 13:25**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:25		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
[signature]	10/29/21 1600	S.E. 10/30/21	11:43
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21J1843

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21J1843-31	**Soil**	**Sampled:10/28/21 13:30**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:30		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21J1843-32	**Soil**	**Sampled:10/28/21 13:35**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 13:35		ON HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Please only analyze highlighted samples. All others on hold pending authorization from Pace-New England. Thank you.

Released By	Date	Received By	Date
	10/29/21 1600	S. E.	10/30/21 11:43
Released By	Date	Received By	Date

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 12/8/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21K0003

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P100-0003-102921	21K0003-01	Soil		Unk	
SC3-S2-SO-P100-0306-102921	21K0003-02	Soil		Unk	
SC3-S2-SO-P101-0003-102921	21K0003-03	Soil		Unk	
SC3-S2-SO-P101-0306-102921	21K0003-04	Soil		Unk	
SC3-S2-SO-P103-0003-102921	21K0003-05	Soil		Unk	
SC3-S2-SO-P103-0306-102921	21K0003-06	Soil		Unk	
SC3-S2-SO-P106-0003-102921	21K0003-07	Soil		Unk	
SC3-S2-SO-P106-0306-102921	21K0003-08	Soil		Unk	
SC3-S2-SO-P200-0003-102921	21K0003-09	Soil		Unk	
SC3-S2-SO-P200-0306-102921	21K0003-10	Soil		Unk	
SC3-S2-SO-P201-0003-102921	21K0003-11	Soil		Unk	
SC3-S2-SO-P201-0306-102921	21K0003-12	Soil		Unk	
SC3-S2-SO-P203-0003-102921	21K0003-13	Soil		Unk	
SC3-S2-SO-P203-0306-102921	21K0003-14	Soil		Unk	
SC3-S2-SO-P206-0003-102921	21K0003-15	Soil		Unk	
SC3-S2-SO-P206-0306-102921	21K0003-16	Soil		Unk	
SC3-S2-SO-P300-0003-102921	21K0003-17	Soil		Unk	
SC3-S2-SO-P300-0306-102921	21K0003-18	Soil		Unk	
SC3-S2-SO-P301-0003-102921	21K0003-19	Soil		Unk	
SC3-S2-SO-P301-0306-102921	21K0003-20	Soil		Unk	
SC3-S2-SO-P303-0003-102921	21K0003-21	Soil		Unk	
SC3-S2-SO-P303-0306-102921	21K0003-22	Soil		Unk	
SC3-S2-SO-P306-0003-102921	21K0003-23	Soil		Unk	
SC3-S2-SO-P306-0306-102921	21K0003-24	Soil		Unk	
SC3-N3-SO-P400-0003-102921	21K0003-25	Soil		Unk	
SC3-N3-SO-P400-0306-102921	21K0003-26	Soil		Unk	
SC3-N3-SO-P401-0003-102921	21K0003-27	Soil		Unk	
SC3-N3-SO-P401-0306-102921	21K0003-28	Soil		Unk	
SC3-N3-SO-P403-0003-102921	21K0003-29	Soil		Unk	
SC3-N3-SO-P403-0306-102921	21K0003-30	Soil		Unk	
SC3-S2-SO-P406-0003-102921	21K0003-31	Soil		Unk	
SC3-S2-SO-P406-0306-102921	21K0003-32	Soil		Unk	
SC3-M1-SO-P500-0003-102921	21K0003-33	Soil		Unk	
SC3-M1-SO-P500-0306-102921	21K0003-34	Soil		Unk	
SC3-M1-SO-P501-0003-102921	21K0003-35	Soil		Unk	
SC3-M1-SO-P501-0306-102921	21K0003-36	Soil		Unk	
SC3-M1-SO-P503-0003-102921	21K0003-37	Soil		Unk	
SC3-M1-SO-P503-0306-102921	21K0003-38	Soil		Unk	
SC3-M1-SO-P506-0003-102921	21K0003-39	Soil		Unk	
SC3-M1-SO-P506-0306-102921	21K0003-40	Soil		Unk	
SC3-N1-SO-CTLP-0003-102921	21K0003-41	Soil		Unk	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 12/8/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21K0003

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-N1-SO-CTLP-0306-102921	21K0003-42	Soil		Unk	
SC3-N4-SO-CTLP-0003-102921	21K0003-43	Soil		Unk	
SC3-N4-SO-CTLP-0306-102921	21K0003-44	Soil		Unk	

BROOKS APPLIED LABS
18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • info@brooksapplied.com

December 8, 2021

Pace Analytical - Con-Test Labs
ATTN: Kaitlyn Feliciano
39 Spruce Street
East Longmeadow, MA 01028
kaitlyn.feliciano@pacelabs.com

RE: Project CON-EL2101 Client Project: 21K0003

Dear Kaitlyn Feliciano,

On November 2, 2021, Brooks Applied Labs (BAL) received forty-four (44) soil samples. Per client request, only fourteen (14) of the total samples received were logged-in for the analyses of total recoverable arsenic (As), arsenic speciation [As(III), As(V), DMA, and MMA), and % total solids (%TS) according to the chain-of-custody forms. All samples were received and stored according to BAL SOPs and EPA methodology.

Total Arsenic Quantitation by ICP-QQQ-MS
All samples were digested via modified EPA Method 3050B with a mixture of concentrated nitric acid, hydrochloric acid, and hydrogen peroxide. Trace metals were analyzed using inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). The ICP-QQQ-MS uses advanced interference removal techniques to ensure accuracy of the sample results. For more information, please visit the *Interference Reduction Technology* section on our website,www.brooksapplied.com.

Arsenic Speciation Quantitation by IC-ICP-CRC-MS
Separate aliquots of each solid sample for arsenic speciation were prepared using phosphoric acid and alkaline phosphate solutions designed to target adsorbed arsenic species. The resulting extracts were analyzed using inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS). Sample and quality control results were evaluated to determine the most representative results to report for each arsenic species. After careful review of both sets of data, the results from the phosphoric acid were reported for all samples within this work order for all species.

In instances where the native sample result and/or the associated duplicate (DUP) result were below the MDL the RPD was not calculated (**N/C**).

The duplicate (DUP) B213110-DUP5 performed on *2111017-02* had a relative percent difference (RPD) above the acceptance limit (132%) for As(III). The duplicate (DUP) B213110-DUP4 was performed on the same sample *2111017-02* with RPD recoveries within the acceptable method control limits. B213110-DUP5 was reported with no qualifiers because of the passing duplicate and because the native and duplicate results are just outside secondary criteria (within 5x the MRL and within the MRL of each other).

The matrix spike (MS) B213110-MS4 and matrix spike duplicate (MSD) B213110-MSD4 performed on *2111015-02,* and the matrix spike (MS) B213110-MS8 and matrix spike duplicate (MSD) B213110-MSD8

performed on *2111017-09* had As(III) recoveries below the acceptance limit due to oxidation of As(III) to As(V). The mass balance was calculated for all samples. The matrix spike (MS) B213110-MS4 and matrix spike duplicate (MSD) B213110-MSD4 had mass balance As recoveries of 92% and 96% respectively. The matrix spike (MS) B213110-MS8 and matrix spike duplicate (MSD) B213110-MSD8 had mass balance As recoveries of 98% and 94% respectively. The As(III) and As(V) results for samples *2111015-02 and 2111017-09* were qualified **N** for low bias.

Total Solids
Solid samples were homogenized, and an aliquot of each sample was measured into a pre-weighed vessel and dried in an oven for at least 12 hours. The vessels were removed from the oven, weighed again, and the percent of dried solid material was calculated.

The results were not method blank corrected, as described in the calculations section of the relevant BAL SOP(s), and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

All data was reported without further qualification and all other associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report. This report should be used in its entirety for interpretation of results. Please feel free to contact us if you have any questions regarding this report.

Sincerely,



Amy Goodall
Project Manager
Brooks Applied Labs
amy@brooksapplied.com

Report Information

Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations /certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/> or review Tables 1 and 2 in our Accreditation Information. Results reported relate only to the samples listed in the report.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

AR	as received
BAL	Brooks Applied Labs
BLK	method blank
BS	blank spike
CAL	calibration standard
CCB	continuing calibration blank
CCV	continuing calibration verification
COC	chain of custody record
D	dissolved fraction
DUP	duplicate
IBL	instrument blank
ICV	initial calibration verification
MDL	method detection limit
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
ND	non-detect
NR	non-reportable
N/C	not calculated
PS	post preparation spike
REC	percent recovery
RPD	relative percent difference
SCV	secondary calibration verification
SOP	standard operating procedure
SRM	reference material
T	total fraction
TR	total recoverable fraction

Definition of Data Qualifiers

(Effective 3/23/2020)

E	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H	Holding time and/or preservation requirements not met. Please see narrative for explanation.
J	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
J-1	Estimated value. A full explanation is presented in the narrative.
M	Duplicate precision (RPD) was not within acceptance criteria. Please see narrative for explanation.
N	Spike recovery was not within acceptance criteria. Please see narrative for explanation.
R	Rejected, unusable value. A full explanation is presented in the narrative.
U	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.
Z	Holding time and/or preservation requirements not established for this method; however, BAL recommendations for holding time were not followed. Please see narrative for explanation.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.

Accreditation Information

Table 1. Accredited method/matrix/analytes for TNI

Issued by: State of Florida Dept. of Health (The NELAC Institute 2016 Standard)
Issued on: July 1, 2021; Valid to: June 30, 2022
Certificate Number: E87982-37

Method	Matrix	TNI Accredited Analyte(s)
EPA 1638	Non-Potable Waters	Ag, Cd, Cu, Ni, Pb, Sb, Se, Tl, Zn
EPA 200.8	Non-Potable Waters	Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
EPA 6020	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
	Solids/Chemicals & Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
BAL-5000	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn, Hardness
	Solids/Chemicals	Ag, As, B, Be, Cd, Co, Cr, Cu, Pb, Mo, Ni, Sb, Se, Sn, Sr, Tl, V, Zn
	Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Tl, V, Zn
EPA 1640	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn
EPA 1631E	Non-Potable Waters, Solids/Chemicals & Biological	Total Mercury
EPA 1630	Non-Potable Waters	Methyl Mercury
BAL-3200	Solids/Chemicals & Biological	Methyl Mercury
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs
BAL-4201	Non-Potable Waters	Se(IV), Se(VI)
BAL-4300	Non-Potable Waters Solid/Chemicals	Cr(VI)
SM2340B	Non-Potable Waters	Hardness

Accreditation Information

Table 2. Accredited method/matrix/analytes for ISO (1), Non-Governmental TNI (2), and DoD/DOE (3)

Issued by: ANAB

Issued on: September 21, 2021; Valid to: March 30, 2024

Method	Matrix	ISO and Non-Gov. TNI Accredited Analyte(s)	DoD/DOE Accredited Analytes
EPA 1638 Mod EPA 200.8 Mod EPA 6020 Mod BAL-5000	Non-Potable Waters	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn	Ag, Al, As, Ba, Ca, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Ni, Sb, Se, V, Zn
	Solids/Chemicals & Biological	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, V, Zn Hg (Biological Only)	Not Accredited
EPA 1640 Mod	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn Ag, As, Cr, Co, Se, Tl, V (ISO Only)	Not Accredited
EPA 1631E Mod BAL-3100	Non-Potable Waters, Solids/Chemicals & Biological/Food	Total Mercury	Total Mercury
EPA 1630 Mod BAL-3200	Non-Potable Waters, Solids/Chemicals Biological	Methyl Mercury	Methyl Mercury (excluding Solids/Chemicals)
EPA 1632A Mod BAL-3300	Non-Potable Waters	Inorganic Arsenic (ISO Only)	Not Accredited
	Biological/Food Solids/Chemicals	Inorganic Arsenic (ISO Only)	Not Accredited
AOAC 2015.01 Mod BAL-5000	Food	As, Cd, Hg, Pb	Not Accredited
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs	Not Accredited
	Biological by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)	Not Accredited
BAL-4101	Food by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)	Not Accredited
BAL-4201	Non-Potable Waters	Se(IV), Se(VI), SeCN, SeMet	Not Accredited
BAL-4300	Non-Potable Waters, Solid/Chemicals	Cr(VI)	Cr(VI)
SM 3500-Fe BAL-4500	Non-Potable Waters	Fe, Fe(II) (ISO Only)	Not Accredited
SM2340B	Non-Potable Waters	Hardness	Hardness
SM 2540G BAL-0501	Solids/Chemicals & Biological	% Dry Weight	% Dry Weight

(1) ISO/IEC 17025:2017 – Certificate Number ADE-1447.02

(2) Non-Governmental NELAC Institute 2016 Standard – Certificate Number ADE-1447.01

(3) Department of Defense/Energy Consolidated Quality Systems Manual v. 5.3 – Certificate Numbers ADE-1447 for DoD, ADE-1447.03 for DOE.

Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
21K0003-01	2111016-01	Soil	Sample	10/29/2021	11/02/2021
21K0003-02	2111016-02	Soil	Sample	10/29/2021	11/02/2021
21K0003-03	2111016-03	Soil	Sample	10/29/2021	11/02/2021
21K0003-04	2111016-04	Soil	Sample	10/29/2021	11/02/2021
21K0003-05	2111016-05	Soil	Sample	10/29/2021	11/02/2021
21K0003-06	2111016-06	Soil	Sample	10/29/2021	11/02/2021
21K0003-07	2111016-07	Soil	Sample	10/29/2021	11/02/2021
21K0003-08	2111016-08	Soil	Sample	10/29/2021	11/02/2021
21K0003-09	2111016-09	Soil	Sample	10/29/2021	11/02/2021
21K0003-10	2111016-10	Soil	Sample	10/29/2021	11/02/2021
21K0003-11	2111016-11	Soil	Sample	10/29/2021	11/02/2021
21K0003-12	2111016-12	Soil	Sample	10/29/2021	11/02/2021
21K0003-13	2111016-13	Soil	Sample	10/29/2021	11/02/2021
21K0003-14	2111016-14	Soil	Sample	10/29/2021	11/02/2021
21K0003-15	2111016-15	Soil	Sample	10/29/2021	11/02/2021
21K0003-16	2111016-16	Soil	Sample	10/29/2021	11/02/2021
21K0003-17	2111016-17	Soil	Sample	10/29/2021	11/02/2021
21K0003-18	2111016-18	Soil	Sample	10/29/2021	11/02/2021
21K0003-19	2111016-19	Soil	Sample	10/29/2021	11/02/2021
21K0003-20	2111016-20	Soil	Sample	10/29/2021	11/02/2021
21K0003-21	2111016-21	Soil	Sample	10/29/2021	11/02/2021
21K0003-22	2111016-22	Soil	Sample	10/29/2021	11/02/2021
21K0003-23	2111016-23	Soil	Sample	10/29/2021	11/02/2021
21K0003-24	2111016-24	Soil	Sample	10/29/2021	11/02/2021
21K0003-25	2111016-25	Soil	Sample	10/29/2021	11/02/2021
21K0003-26	2111016-26	Soil	Sample	10/29/2021	11/02/2021
21K0003-27	2111016-27	Soil	Sample	10/29/2021	11/02/2021
21K0003-28	2111016-28	Soil	Sample	10/29/2021	11/02/2021
21K0003-29	2111016-29	Soil	Sample	10/29/2021	11/02/2021
21K0003-30	2111016-30	Soil	Sample	10/29/2021	11/02/2021
21K0003-31	2111016-31	Soil	Sample	10/29/2021	11/02/2021
21K0003-32	2111016-32	Soil	Sample	10/29/2021	11/02/2021
21K0003-33	2111016-33	Soil	Sample	10/29/2021	11/02/2021
21K0003-34	2111016-34	Soil	Sample	10/29/2021	11/02/2021
21K0003-35	2111016-35	Soil	Sample	10/29/2021	11/02/2021
21K0003-36	2111016-36	Soil	Sample	10/29/2021	11/02/2021
21K0003-37	2111016-37	Soil	Sample	10/29/2021	11/02/2021
21K0003-38	2111016-38	Soil	Sample	10/29/2021	11/02/2021
21K0003-39	2111016-39	Soil	Sample	10/29/2021	11/02/2021
21K0003-40	2111016-40	Soil	Sample	10/29/2021	11/02/2021

Project ID: CON-EL2101
PM: Amy Goodall

Client PM: Kaitlyn Feliciano
Client Project: 21K0003

Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
21K0003-41	2111016-41	Soil	Sample	10/29/2021	11/02/2021
21K0003-42	2111016-42	Soil	Sample	10/29/2021	11/02/2021
21K0003-43	2111016-43	Soil	Sample	10/29/2021	11/02/2021
21K0003-44	2111016-44	Soil	Sample	10/29/2021	11/02/2021

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
%TS	Soil/Sediment	SOP BAL-0501	11/16/2021	11/17/2021	B213105	N/A
As	Soil/Sediment	EPA 6020B Mod	11/16/2021	11/18/2021	B213104	S211331
As(III)	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
As(V)	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
DMAs	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
MMAs	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
21K0003-01										
2111016-01	%TS	Soil	NA	83.93		0.01	0.04	%	B213105	N/A
2111016-01	As	Soil	dry	2.81		0.054	0.125	mg/kg	B213104	S211331
2111016-01	As(III)	Soil	dry	≤ 0.001	U	0.001	0.013	mg/kg	B213110	S211330
2111016-01	As(V)	Soil	dry	0.297		0.008	0.017	mg/kg	B213110	S211330
2111016-01	DMAs	Soil	dry	≤ 0.003	U	0.003	0.014	mg/kg	B213110	S211330
2111016-01	MMAs	Soil	dry	≤ 0.001	U	0.001	0.014	mg/kg	B213110	S211330
21K0003-02										
2111016-02	%TS	Soil	NA	87.87		0.01	0.04	%	B213105	N/A
2111016-02	As	Soil	dry	2.78		0.050	0.116	mg/kg	B213104	S211331
2111016-02	As(III)	Soil	dry	≤ 0.001	U	0.001	0.013	mg/kg	B213110	S211330
2111016-02	As(V)	Soil	dry	0.306		0.008	0.016	mg/kg	B213110	S211330
2111016-02	DMAs	Soil	dry	≤ 0.003	U	0.003	0.014	mg/kg	B213110	S211330
2111016-02	MMAs	Soil	dry	≤ 0.001	U	0.001	0.014	mg/kg	B213110	S211330
21K0003-09										
2111016-09	%TS	Soil	NA	85.85		0.02	0.05	%	B213105	N/A
2111016-09	As	Soil	dry	2.94		0.052	0.121	mg/kg	B213104	S211331
2111016-09	As(III)	Soil	dry	≤ 0.001	U	0.001	0.013	mg/kg	B213110	S211330
2111016-09	As(V)	Soil	dry	0.325		0.008	0.016	mg/kg	B213110	S211330
2111016-09	DMAs	Soil	dry	≤ 0.003	U	0.003	0.014	mg/kg	B213110	S211330
2111016-09	MMAs	Soil	dry	≤ 0.001	U	0.001	0.014	mg/kg	B213110	S211330
21K0003-10										
2111016-10	%TS	Soil	NA	85.99		0.01	0.05	%	B213105	N/A
2111016-10	As	Soil	dry	2.76		0.051	0.119	mg/kg	B213104	S211331
2111016-10	As(III)	Soil	dry	≤ 0.001	U	0.001	0.013	mg/kg	B213110	S211330
2111016-10	As(V)	Soil	dry	0.389		0.008	0.016	mg/kg	B213110	S211330
2111016-10	DMAs	Soil	dry	≤ 0.003	U	0.003	0.014	mg/kg	B213110	S211330
2111016-10	MMAs	Soil	dry	≤ 0.001	U	0.001	0.014	mg/kg	B213110	S211330
21K0003-17										
2111016-17	%TS	Soil	NA	89.00		0.02	0.05	%	B213105	N/A
2111016-17	As	Soil	dry	2.05		0.050	0.117	mg/kg	B213104	S211331
2111016-17	As(III)	Soil	dry	≤ 0.001	U	0.001	0.013	mg/kg	B213110	S211330
2111016-17	As(V)	Soil	dry	0.242		0.008	0.016	mg/kg	B213110	S211330
2111016-17	DMAs	Soil	dry	≤ 0.003	U	0.003	0.014	mg/kg	B213110	S211330
2111016-17	MMAs	Soil	dry	≤ 0.001	U	0.001	0.014	mg/kg	B213110	S211330

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
21K0003-18										
2111016-18	%TS	Soil	NA	89.36		0.01	0.03	%	B213105	N/A
2111016-18	As	Soil	dry	2.22		0.047	0.109	mg/kg	B213104	S211331
2111016-18	As(III)	Soil	dry	≤ 0.001	U	0.001	0.013	mg/kg	B213110	S211330
2111016-18	As(V)	Soil	dry	0.258		0.008	0.016	mg/kg	B213110	S211330
2111016-18	DMAs	Soil	dry	≤ 0.003	U	0.003	0.013	mg/kg	B213110	S211330
2111016-18	MMAs	Soil	dry	≤ 0.001	U	0.001	0.013	mg/kg	B213110	S211330
21K0003-25										
2111016-25	%TS	Soil	NA	73.03		0.01	0.04	%	B213105	N/A
2111016-25	As	Soil	dry	4.22		0.061	0.143	mg/kg	B213104	S211331
2111016-25	As(III)	Soil	dry	0.009	J	0.002	0.016	mg/kg	B213110	S211330
2111016-25	As(V)	Soil	dry	0.304		0.010	0.020	mg/kg	B213110	S211330
2111016-25	DMAs	Soil	dry	≤ 0.004	U	0.004	0.017	mg/kg	B213110	S211330
2111016-25	MMAs	Soil	dry	≤ 0.002	U	0.002	0.017	mg/kg	B213110	S211330
21K0003-26										
2111016-26	%TS	Soil	NA	83.66		0.009	0.03	%	B213105	N/A
2111016-26	As	Soil	dry	2.30		0.054	0.125	mg/kg	B213104	S211331
2111016-26	As(III)	Soil	dry	0.023		0.001	0.013	mg/kg	B213110	S211330
2111016-26	As(V)	Soil	dry	0.435		0.008	0.017	mg/kg	B213110	S211330
2111016-26	DMAs	Soil	dry	≤ 0.003	U	0.003	0.014	mg/kg	B213110	S211330
2111016-26	MMAs	Soil	dry	≤ 0.001	U	0.001	0.014	mg/kg	B213110	S211330
21K0003-33										
2111016-33	%TS	Soil	NA	66.81		0.01	0.03	%	B213105	N/A
2111016-33	As	Soil	dry	1.35		0.065	0.152	mg/kg	B213104	S211331
2111016-33	As(III)	Soil	dry	0.056		0.002	0.017	mg/kg	B213110	S211330
2111016-33	As(V)	Soil	dry	0.791		0.010	0.021	mg/kg	B213110	S211330
2111016-33	DMAs	Soil	dry	≤ 0.004	U	0.004	0.018	mg/kg	B213110	S211330
2111016-33	MMAs	Soil	dry	≤ 0.002	U	0.002	0.018	mg/kg	B213110	S211330
21K0003-34										
2111016-34	%TS	Soil	NA	69.57		0.01	0.04	%	B213105	N/A
2111016-34	As	Soil	dry	3.10		0.061	0.142	mg/kg	B213104	S211331
2111016-34	As(III)	Soil	dry	0.190		0.002	0.016	mg/kg	B213110	S211330
2111016-34	As(V)	Soil	dry	0.659		0.010	0.019	mg/kg	B213110	S211330
2111016-34	DMAs	Soil	dry	≤ 0.004	U	0.004	0.017	mg/kg	B213110	S211330
2111016-34	MMAs	Soil	dry	≤ 0.002	U	0.002	0.017	mg/kg	B213110	S211330

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
21K0003-41										
2111016-41	%TS	Soil	NA	79.29		0.01	0.05	%	B213105	N/A
2111016-41	As	Soil	dry	3.73		0.056	0.130	mg/kg	B213104	S211331
2111016-41	As(III)	Soil	dry	0.060		0.002	0.014	mg/kg	B213110	S211330
2111016-41	As(V)	Soil	dry	0.511		0.009	0.018	mg/kg	B213110	S211330
2111016-41	DMAs	Soil	dry	≤ 0.003	U	0.003	0.015	mg/kg	B213110	S211330
2111016-41	MMAs	Soil	dry	≤ 0.002	U	0.002	0.015	mg/kg	B213110	S211330
21K0003-42										
2111016-42	%TS	Soil	NA	84.01		0.01	0.03	%	B213105	N/A
2111016-42	As	Soil	dry	5.91		0.053	0.123	mg/kg	B213104	S211331
2111016-42	As(III)	Soil	dry	0.040		0.001	0.013	mg/kg	B213110	S211330
2111016-42	As(V)	Soil	dry	0.612		0.008	0.016	mg/kg	B213110	S211330
2111016-42	DMAs	Soil	dry	≤ 0.003	U	0.003	0.014	mg/kg	B213110	S211330
2111016-42	MMAs	Soil	dry	≤ 0.001	U	0.001	0.014	mg/kg	B213110	S211330
21K0003-43										
2111016-43	%TS	Soil	NA	62.18		0.02	0.05	%	B213105	N/A
2111016-43	As	Soil	dry	6.51		0.065	0.152	mg/kg	B213104	S211331
2111016-43	As(III)	Soil	dry	0.225		0.002	0.019	mg/kg	B213110	S211330
2111016-43	As(V)	Soil	dry	2.50		0.012	0.023	mg/kg	B213110	S211330
2111016-43	DMAs	Soil	dry	0.008	J	0.004	0.020	mg/kg	B213110	S211330
2111016-43	MMAs	Soil	dry	0.003	J	0.002	0.020	mg/kg	B213110	S211330
21K0003-44										
2111016-44	%TS	Soil	NA	76.35		0.007	0.02	%	B213105	N/A
2111016-44	As	Soil	dry	3.76		0.055	0.129	mg/kg	B213104	S211331
2111016-44	As(III)	Soil	dry	0.080		0.002	0.015	mg/kg	B213110	S211330
2111016-44	As(V)	Soil	dry	0.900		0.009	0.018	mg/kg	B213110	S211330
2111016-44	DMAs	Soil	dry	≤ 0.003	U	0.003	0.016	mg/kg	B213110	S211330
2111016-44	MMAs	Soil	dry	≤ 0.002	U	0.002	0.016	mg/kg	B213110	S211330

Accuracy & Precision Summary

Batch: B213104
Lab Matrix: Soil/Sediment
Method: EPA 6020B Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213104-BS1	**Blank Spike, (2116054)**						
	As		50.00	42.62	mg/kg	85% 75-125	
B213104-BS2	**Blank Spike, (2116054)**						
	As		50.00	42.05	mg/kg	84% 75-125	
B213104-SRM1	**Reference Material (2005027, CRM052-50G Loamy Clay)**						
	As		202.0	175.9	mg/kg	87% 75-125	
B213104-SRM2	**Reference Material (2005027, CRM052-50G Loamy Clay)**						
	As		202.0	171.7	mg/kg	85% 75-125	
B213104-DUP1	**Duplicate, (2111006-10)**						
	As	2.500		3.261	mg/kg		26% 30
B213104-MS1	**Matrix Spike, (2111006-10)**						
	As	2.500	70.75	62.49	mg/kg	85% 70-130	
B213104-MSD1	**Matrix Spike Duplicate, (2111006-10)**						
	As	2.500	66.07	58.06	mg/kg	84% 70-130	0.8% 30
B213104-DUP2	**Duplicate, (2111014-03)**						
	As	3.155		2.949	mg/kg		7% 30
B213104-MS2	**Matrix Spike, (2111014-03)**						
	As	3.155	60.46	54.11	mg/kg	84% 70-130	
B213104-MSD2	**Matrix Spike Duplicate, (2111014-03)**						
	As	3.155	60.97	53.97	mg/kg	83% 70-130	1% 30
B213104-DUP3	**Duplicate, (2111016-17)**						
	As	2.047		2.190	mg/kg		7% 30

Accuracy & Precision Summary

Batch: B213104
Lab Matrix: Soil/Sediment
Method: EPA 6020B Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213104-MS3	**Matrix Spike, (2111016-17)**						
	As	2.047	55.08	48.39	mg/kg	84% 70-130	
B213104-MSD3	**Matrix Spike Duplicate, (2111016-17)**						
	As	2.047	55.57	47.79	mg/kg	82% 70-130	2% 30
B213104-DUP4	**Duplicate, (2111017-02)**						
	As	1.917		1.638	mg/kg		16% 30
B213104-MS4	**Matrix Spike, (2111017-02)**						
	As	1.917	66.52	58.45	mg/kg	85% 70-130	
B213104-MSD4	**Matrix Spike Duplicate, (2111017-02)**						
	As	1.917	67.17	59.52	mg/kg	86% 70-130	0.9% 30

Accuracy & Precision Summary

Batch: B213105
Lab Matrix: Soil/Sediment
Method: SOP BAL-0501

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213105-DUP1	**Duplicate, (2111006-10)**						
	%TS	69.39		69.06	%		0.5% 15
B213105-DUP2	**Duplicate, (2111014-03)**						
	%TS	81.57		81.45	%		0.2% 15
B213105-DUP3	**Duplicate, (2111016-17)**						
	%TS	89.00		87.17	%		2% 15
B213105-DUP4	**Duplicate, (2111017-02)**						
	%TS	66.84		61.96	%		8% 15

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-BS1	**Blank Spike, As (V) (1941027)**						
	As(V)		9.706	8.361	mg/kg	86% 75-125	
B213110-BS2	**Blank Spike, As (III), MMA, DMA (2146001)**						
	As(III)		10.00	9.329	mg/kg	93% 75-125	
	DMAs		10.42	11.08	mg/kg	106% 75-125	
	MMAs		10.00	9.943	mg/kg	99% 75-125	
B213110-DUP1	**Duplicate, (2111006-17)**						
	As(III)	0.077		0.091	mg/kg		17% 25
	As(V)	1.802		2.155	mg/kg		18% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS1	**Matrix Spike, As (V) (2111006-17)**						
	As(V)	1.802	15.24	14.03	mg/kg	80% 75-125	
B213110-MS2	**Matrix Spike, As (III), MMA, DMA (2111006-17)**						
	As(III)	0.077	16.37	13.50	mg/kg	82% 75-125	
	DMAs	ND	17.06	16.30	mg/kg	96% 75-125	
	MMAs	ND	16.37	15.04	mg/kg	92% 75-125	
B213110-MSD1	**Matrix Spike Duplicate, As (V) (2111006-17)**						
	As(V)	1.802	15.12	14.02	mg/kg	81% 75-125	0.7% 25
B213110-MSD2	**Matrix Spike Duplicate, As (III), MMA, DMA (2111006-17)**						
	As(III)	0.077	15.88	13.84	mg/kg	87% 75-125	6% 25
	DMAs	ND	16.55	16.62	mg/kg	100% 75-125	5% 25
	MMAs	ND	15.88	15.46	mg/kg	97% 75-125	6% 25
B213110-DUP2	**Duplicate, (2111015-02)**						
	As(III)	ND		ND	mg/kg		N/C 25
	As(V)	0.111		0.114	mg/kg		3% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-MS3	**Matrix Spike, As (V) (2111015-02)**						
	As(V)	0.111	11.59	10.70	mg/kg	91% 75-125	
B213110-MS4	**Matrix Spike, As (III), MMA, DMA (2111015-02)**						
	As(III)	ND	11.82	5.843	mg/kg	*49%* 75-125	
	DMAs	ND	12.31	11.85	mg/kg	96% 75-125	
	MMAs	ND	11.82	10.82	mg/kg	92% 75-125	
B213110-MSD3	**Matrix Spike Duplicate, As (V) (2111015-02)**						
	As(V)	0.111	11.17	10.17	mg/kg	90% 75-125	2% 25
B213110-MSD4	**Matrix Spike Duplicate, As (III), MMA, DMA (2111015-02)**						
	As(III)	ND	11.44	5.623	mg/kg	*49%* 75-125	0.6% 25
	DMAs	ND	11.92	12.06	mg/kg	101% 75-125	5% 25
	MMAs	ND	11.44	11.01	mg/kg	96% 75-125	5% 25
B213110-DUP3	**Duplicate, (2111016-25)**						
	As(III)	0.009		0.009	mg/kg		3% 25
	As(V)	0.304		0.368	mg/kg		19% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS5	**Matrix Spike, As (V) (2111016-25)**						
	As(V)	0.304	12.95	11.00	mg/kg	83% 75-125	
B213110-MS6	**Matrix Spike, As (III), MMA, DMA (2111016-25)**						
	As(III)	0.009	13.27	11.34	mg/kg	85% 75-125	
	DMAs	ND	13.82	13.95	mg/kg	101% 75-125	
	MMAs	ND	13.27	12.87	mg/kg	97% 75-125	
B213110-MSD5	**Matrix Spike Duplicate, As (V) (2111016-25)**						
	As(V)	0.304	13.05	11.12	mg/kg	83% 75-125	0.3% 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-MSD6	**Matrix Spike Duplicate, As (III), MMA, DMA (2111016-25)**						
	As(III)	0.009	13.35	11.52	mg/kg	86% 75-125	0.9% 25
	DMAs	ND	13.92	13.90	mg/kg	100% 75-125	1% 25
	MMAs	ND	13.35	12.88	mg/kg	96% 75-125	0.6% 25
B213110-DUP4	**Duplicate, (2111017-09)**						
	As(III)	0.041		0.035	mg/kg		17% 25
	As(V)	0.277		0.256	mg/kg		8% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-DUP5	**Duplicate, (2111017-09)**						
	As(III)	0.041		0.008	mg/kg		*132%* 25
	As(V)	0.277		0.298	mg/kg		7% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS7	**Matrix Spike, As (V) (2111017-09)**						
	As(V)	0.277	11.58	10.34	mg/kg	87% 75-125	
B213110-MS8	**Matrix Spike, As (III), MMA, DMA (2111017-09)**						
	As(III)	0.041	12.36	6.383	mg/kg	*51%* 75-125	
	DMAs	ND	12.88	13.24	mg/kg	103% 75-125	
	MMAs	ND	12.36	12.00	mg/kg	97% 75-125	
B213110-MSD7	**Matrix Spike Duplicate, As (V) (2111017-09)**						
	As(V)	0.277	11.93	10.91	mg/kg	89% 75-125	3% 25
B213110-MSD8	**Matrix Spike Duplicate, As (III), MMA, DMA (2111017-09)**						
	As(III)	0.041	12.57	7.696	mg/kg	*61%* 75-125	17% 25
	DMAs	ND	13.10	12.80	mg/kg	98% 75-125	5% 25
	MMAs	ND	12.57	11.70	mg/kg	93% 75-125	4% 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-PS1	**Post Spike, (2111017-09)**						
	As(III)	0.041	0.8068	0.805	mg/kg	95% 75-125	
	As(V)	0.277	0.7497	1.033	mg/kg	101% 75-125	
	DMAs	ND	0.7721	0.772	mg/kg	100% 75-125	
	MMAs	ND	0.7721	0.772	mg/kg	100% 75-125	

Method Blanks & Reporting Limits

Batch: B213104
Matrix: Soil/Sediment
Method: EPA 6020B Mod
Analyte: As

Sample	Result	Units
B213104-BLK1	0.001	mg/kg
B213104-BLK2	0.002	mg/kg
B213104-BLK3	0.001	mg/kg
B213104-BLK4	-0.00005	mg/kg

Average: 0.001
Limit: 0.105

MDL: 0.045
MRL: 0.105

Method Blanks & Reporting Limits

Batch: B213105
Matrix: Soil/Sediment
Method: SOP BAL-0501
Analyte: %TS

Sample	Result	Units
B213105-BLK1	-0.004	%
B213105-BLK2	0.04	%

Average: 0.02
Limit: 0.05

MDL: 0.01
MRL: 0.05

Method Blanks & Reporting Limits

Batch: B213110
Matrix: Soil/Sediment
Method: SOP BAL-4100
Analyte: As(III)

Sample	Result	Units
B213110-BLK1	0.0007	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.012
MDL: 0.001
MRL: 0.012

Analyte: As(V)

Sample	Result	Units
B213110-BLK1	0.006	mg/kg
B213110-BLK2	0.006	mg/kg
B213110-BLK3	0.006	mg/kg
B213110-BLK4	0.005	mg/kg

Average: 0.006
Limit: 0.015
MDL: 0.007
MRL: 0.014

Analyte: DMAs

Sample	Result	Units
B213110-BLK1	0.00	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.013
MDL: 0.003
MRL: 0.012

Method Blanks & Reporting Limits

Analyte: MMAs

Sample	Result	Units
B213110-BLK1	0.00	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.013

Standard Deviation: 0.000
Limit: 0.001

MDL: 0.001
MRL: 0.012

Sample Containers

Lab ID: 2111016-01
Sample: 21K0003-01
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-02
Sample: 21K0003-02
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-03
Sample: 21K0003-03
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-04
Sample: 21K0003-04
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-05
Sample: 21K0003-05
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-06
Sample: 21K0003-06
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Sample Containers

Lab ID: 2111016-07
Sample: 21K0003-07
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-08
Sample: 21K0003-08
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-09
Sample: 21K0003-09
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-10
Sample: 21K0003-10
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-11
Sample: 21K0003-11
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-12
Sample: 21K0003-12
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Sample Containers

Lab ID: 2111016-13
Sample: 21K0003-13
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-14
Sample: 21K0003-14
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-15
Sample: 21K0003-15
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-16
Sample: 21K0003-16
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-17
Sample: 21K0003-17
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-18
Sample: 21K0003-18
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Sample Containers

Lab ID: 2111016-19
Sample: 21K0003-19
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-20
Sample: 21K0003-20
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-21
Sample: 21K0003-21
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-22
Sample: 21K0003-22
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-23
Sample: 21K0003-23
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-24
Sample: 21K0003-24
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Sample Containers

Lab ID: 2111016-25
Sample: 21K0003-25
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-26
Sample: 21K0003-26
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-27
Sample: 21K0003-27
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-28
Sample: 21K0003-28
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-29
Sample: 21K0003-29
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-30
Sample: 21K0003-30
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Sample Containers

Lab ID: 2111016-31
Sample: 21K0003-31
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-32
Sample: 21K0003-32
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-33
Sample: 21K0003-33
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-34
Sample: 21K0003-34
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-35
Sample: 21K0003-35
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-36
Sample: 21K0003-36
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Sample Containers

Lab ID: 2111016-37
Sample: 21K0003-37
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-38
Sample: 21K0003-38
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-39
Sample: 21K0003-39
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-40
Sample: 21K0003-40
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-41
Sample: 21K0003-41
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-42
Sample: 21K0003-42
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Project ID: CON-EL2101
PM: Amy Goodall

Client PM: Kaitlyn Feliciano
Client Project: 21K0003

Sample Containers

Lab ID: 2111016-43
Sample: 21K0003-43
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Lab ID: 2111016-44
Sample: 21K0003-44
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111016

Shipping Containers

Cooler - 2111016

Received: November 2, 2021 9:45
Tracking No: 7750 8480 6776 via FedEx
Coolant Type: Blue Ice
Temperature: 5.6 °C

Description: Cooler
Damaged in transit? No
Returned to client? No
Comments: IR#31

Custody seals present? No
Custody seals intact? No
COC present? Yes

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0003

SENDING LABORATORY:

Con-Test, a Pace Analytical Laboratory
39 Spruce Street
East Longmeadow, MA 01028
Phone: 413.525.2332
Fax: 413.525.6405
Project Manager: Kaitlyn A. Feliciano

RECEIVING LABORATORY:

Brooks Applied Labs
18804 North Creek Parkway, Suite 100
Bothell, WA 98011
Phone :(206) 632-6206
Fax:

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0003-01	**Soil**	**Sampled:10/29/21 09:35**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 09:35		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-02	**Soil**	**Sampled:10/29/21 09:40**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 09:40		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-03	**Soil**	**Sampled:10/29/21 09:45**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 09:45		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-04	**Soil**	**Sampled:10/29/21 09:50**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 09:50		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-05	**Soil**	**Sampled:10/29/21 09:55**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 09:55		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-06	**Soil**	**Sampled:10/29/21 10:00**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:00		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
	11/1/21 1600	BAL	11/02/21 09:45

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0003

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0003-07	**Soil**	**Sampled:10/29/21 10:05**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:05		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-08	**Soil**	**Sampled:10/29/21 10:10**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:10		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-09	**Soil**	**Sampled:10/29/21 10:45**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:45		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-10	**Soil**	**Sampled:10/29/21 10:50**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:50		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-11	**Soil**	**Sampled:10/29/21 10:55**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:55		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-12	**Soil**	**Sampled:10/29/21 11:00**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 11:00		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-13	**Soil**	**Sampled:10/29/21 11:00**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 11:00		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-14	**Soil**	**Sampled:10/29/21 10:55**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:55		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
[signature]	11/1/21 1600	[signature] BAL	11/02/21 09:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0003

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0003-15	**Soil**	**Sampled:10/29/21 10:50**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:50		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-16	**Soil**	**Sampled:10/29/21 10:45**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 10:45		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-17	**Soil**	**Sampled:10/29/21 11:35**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 11:35		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-18	**Soil**	**Sampled:10/29/21 11:40**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 11:40		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-19	**Soil**	**Sampled:10/29/21 11:45**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 11:45		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-20	**Soil**	**Sampled:10/29/21 11:50**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 11:50		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-21	**Soil**	**Sampled:10/29/21 11:55**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 11:55		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-22	**Soil**	**Sampled:10/29/21 12:00**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 12:00		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
[signature]	11/1/21 1600	[signature] BAL	11/02/21 09:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0003

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0003-23	**Soil**	**Sampled:10/29/21 12:05**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 12:05		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-24	**Soil**	**Sampled:10/29/21 12:10**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 12:10		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-25	**Soil**	**Sampled:10/29/21 13:40**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 13:40		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-26	**Soil**	**Sampled:10/29/21 13:45**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 13:45		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-27	**Soil**	**Sampled:10/29/21 13:50**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 13:50		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-28	**Soil**	**Sampled:10/29/21 13:55**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 13:55		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-29	**Soil**	**Sampled:10/29/21 14:00**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 14:00		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-30	**Soil**	**Sampled:10/29/21 14:05**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 14:05		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
	11/1/21 1000	BAL	11/02/21 09:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0003

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0003-31	**Soil**	**Sampled:10/29/21 14:10**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 14:10		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-32	**Soil**	**Sampled:10/29/21 14:15**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 14:15		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-33	**Soil**	**Sampled:10/29/21 15:05**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:05		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-34	**Soil**	**Sampled:10/29/21 15:10**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:10		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-35	**Soil**	**Sampled:10/29/21 15:15**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:15		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-36	**Soil**	**Sampled:10/29/21 15:20**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:20		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-37	**Soil**	**Sampled:10/29/21 15:25**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:25		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-38	**Soil**	**Sampled:10/29/21 15:30**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:30		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
[signature]	11/1/21 1600	[signature] BAL	11/02/21 09:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0003

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0003-39	**Soil**	**Sampled:10/29/21 15:35**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:35		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-40	**Soil**	**Sampled:10/29/21 15:40**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 15:40		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-41	**Soil**	**Sampled:10/29/21 14:50**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 14:50		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-42	**Soil**	**Sampled:10/29/21 14:55**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 14:55		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-43	**Soil**	**Sampled:10/29/21 13:15**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 13:15		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0003-44	**Soil**	**Sampled:10/29/21 13:20**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 13:20		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Please only analyze highlighted samples. All others on hold pending authorization from Pace-New England. Thank you.

Released By	Date	Received By	Date
[signature]	11/1/21 1600	[signature] BAL	11/02/21 09:45
Released By	Date	Received By	Date

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 12/8/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21K0005

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-S1-SO-P500-0003-102821	21K0005-01	Soil		Unk	
SC1-S1-SO-P500-0306-102821	21K0005-02	Soil		Unk	
SC1-S1-SO-P501-0003-102821	21K0005-03	Soil		Unk	
SC1-S1-SO-P501-0306-102821	21K0005-04	Soil		Unk	
SC1-S1-SO-P503-0003-102821	21K0005-05	Soil		Unk	
SC1-S1-SO-P503-0306-102821	21K0005-06	Soil		Unk	
SC1-S1-SO-P506-0003-102821	21K0005-07	Soil		Unk	
SC1-S1-SO-P506-0306-102821	21K0005-08	Soil		Unk	
SC1-N1-SO-CTLU-0003-102921	21K0005-09	Soil		Unk	
SC1-N1-SO-CTLU-0306-102921	21K0005-10	Soil		Unk	
SC1-N2-SO-CTLU-0003-102921	21K0005-11	Soil		Unk	
SC1-N2-SO-CTLU-0306-102921	21K0005-12	Soil		Unk	

BROOKS APPLIED LABS
18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • info@brooksapplied.com

December 8, 2021

Pace Analytical - Con-Test Labs
ATTN: Kaitlyn Feliciano
39 Spruce Street
East Longmeadow, MA 01028
kaitlyn.feliciano@pacelabs.com

RE: Project CON-EL2101 Client Project: 21K0005

Dear Kaitlyn Feliciano,

On November 2, 2021, Brooks Applied Labs (BAL) received twelve (12) soil samples. Per client request, only six (6) of the total samples received were logged-in for the analyses of total recoverable arsenic (As), arsenic speciation [As(III), As(V), DMA, and MMA), and % total solids (%TS) according to the chain-of-custody forms. All samples were received and stored according to BAL SOPs and EPA methodology.

Total Arsenic Quantitation by ICP-QQQ-MS
All samples were digested via modified EPA Method 3050B with a mixture of concentrated nitric acid, hydrochloric acid, and hydrogen peroxide. Trace metals were analyzed using inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). The ICP-QQQ-MS uses advanced interference removal techniques to ensure accuracy of the sample results. For more information, please visit the *Interference Reduction Technology* section on our website,www.brooksapplied.com.

Arsenic Speciation Quantitation by IC-ICP-CRC-MS
Separate aliquots of each solid sample for arsenic speciation were prepared using phosphoric acid and alkaline phosphate solutions designed to target adsorbed arsenic species. The resulting extracts were analyzed using inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS). Sample and quality control results were evaluated to determine the most representative results to report for each arsenic species. After careful review of both sets of data, the results from the phosphoric acid were reported for all samples within this work order for all species.

In instances where the native sample result and/or the associated duplicate (DUP) result were below the MDL the RPD was not calculated (**N/C**).

The duplicate (DUP) B213110-DUP5 performed on *2111017-02* had a relative percent difference (RPD) above the acceptance limit (132%) for As(III). The duplicate (DUP) B213110-DUP4 was performed on the same sample *2111017-02* with RPD recoveries within the acceptable method control limits. B213110-DUP5 was reported with no qualifiers because of the passing duplicate and because the native and duplicate results are just outside secondary criteria (within 5x the MRL and within the MRL of each other).

The matrix spike (MS) B213110-MS4 and matrix spike duplicate (MSD) B213110-MSD4 performed on *2111015-02,* and the matrix spike (MS) B213110-MS8 and matrix spike duplicate (MSD) B213110-MSD8 performed on *2111017-09* had As(III) recoveries below the acceptance limit due to oxidation of As(III) to

As(V). The mass balance was calculated for all samples. The matrix spike (MS) B213110-MS4 and matrix spike duplicate (MSD) B213110-MSD4 had mass balance As recoveries of 92% and 96% respectively. The matrix spike (MS) B213110-MS8 and matrix spike duplicate (MSD) B213110-MSD8 had mass balance As recoveries of 98% and 94% respectively. The As(III) and As(V) results for samples *2111015-02 and 2111017-09* were qualified **N** for low bias.

Total Solids
Solid samples were homogenized, and an aliquot of each sample was measured into a pre-weighed vessel and dried in an oven for at least 12 hours. The vessels were removed from the oven, weighed again, and the percent of dried solid material was calculated.

The results were not method blank corrected, as described in the calculations section of the relevant BAL SOP(s), and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

All data was reported without further qualification and all other associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report. This report should be used in its entirety for interpretation of results. Please feel free to contact us if you have any questions regarding this report.

Sincerely,



Amy Goodall
Project Manager
Brooks Applied Labs
amy@brooksapplied.com

Report Information

Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations /certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/> or review Tables 1 and 2 in our Accreditation Information. Results reported relate only to the samples listed in the report.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

AR	as received
BAL	Brooks Applied Labs
BLK	method blank
BS	blank spike
CAL	calibration standard
CCB	continuing calibration blank
CCV	continuing calibration verification
COC	chain of custody record
D	dissolved fraction
DUP	duplicate
IBL	instrument blank
ICV	initial calibration verification
MDL	method detection limit
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
ND	non-detect
NR	non-reportable
N/C	not calculated
PS	post preparation spike
REC	percent recovery
RPD	relative percent difference
SCV	secondary calibration verification
SOP	standard operating procedure
SRM	reference material
T	total fraction
TR	total recoverable fraction

Definition of Data Qualifiers

(Effective 3/23/2020)

E	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H	Holding time and/or preservation requirements not met. Please see narrative for explanation.
J	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
J-1	Estimated value. A full explanation is presented in the narrative.
M	Duplicate precision (RPD) was not within acceptance criteria. Please see narrative for explanation.
N	Spike recovery was not within acceptance criteria. Please see narrative for explanation.
R	Rejected, unusable value. A full explanation is presented in the narrative.
U	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.
Z	Holding time and/or preservation requirements not established for this method; however, BAL recommendations for holding time were not followed. Please see narrative for explanation.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.

Accreditation Information

Table 1. Accredited method/matrix/analytes for TNI

Issued by: State of Florida Dept. of Health (The NELAC Institute 2016 Standard)
Issued on: July 1, 2021; Valid to: June 30, 2022
Certificate Number: E87982-37

Method	Matrix	TNI Accredited Analyte(s)
EPA 1638	Non-Potable Waters	Ag, Cd, Cu, Ni, Pb, Sb, Se, Tl, Zn
EPA 200.8	Non-Potable Waters	Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
EPA 6020	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
	Solids/Chemicals & Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
BAL-5000	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn, Hardness
	Solids/Chemicals	Ag, As, B, Be, Cd, Co, Cr, Cu, Pb, Mo, Ni, Sb, Se, Sn, Sr, Tl, V, Zn
	Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Tl, V, Zn
EPA 1640	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn
EPA 1631E	Non-Potable Waters, Solids/Chemicals & Biological	Total Mercury
EPA 1630	Non-Potable Waters	Methyl Mercury
BAL-3200	Solids/Chemicals & Biological	Methyl Mercury
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs
BAL-4201	Non-Potable Waters	Se(IV), Se(VI)
BAL-4300	Non-Potable Waters Solid/Chemicals	Cr(VI)
SM2340B	Non-Potable Waters	Hardness

Accreditation Information

Table 2. Accredited method/matrix/analytes for ISO (1), Non-Governmental TNI (2), and DoD/DOE (3)

Issued by: ANAB

Issued on: September 21, 2021; Valid to: March 30, 2024

Method	Matrix	ISO and Non-Gov. TNI Accredited Analyte(s)	DoD/DOE Accredited Analytes
EPA 1638 Mod EPA 200.8 Mod EPA 6020 Mod BAL-5000	Non-Potable Waters	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn	Ag, Al, As, Ba, Ca, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Ni, Sb, Se, V, Zn
	Solids/Chemicals & Biological	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, V, Zn Hg (Biological Only)	Not Accredited
EPA 1640 Mod	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn Ag, As, Cr, Co, Se, Tl, V (ISO Only)	Not Accredited
EPA 1631E Mod BAL-3100	Non-Potable Waters, Solids/Chemicals & Biological/Food	Total Mercury	Total Mercury
EPA 1630 Mod BAL-3200	Non-Potable Waters, Solids/Chemicals Biological	Methyl Mercury	Methyl Mercury (excluding Solids/Chemicals)
EPA 1632A Mod BAL-3300	Non-Potable Waters	Inorganic Arsenic (ISO Only)	Not Accredited
	Biological/Food Solids/Chemicals	Inorganic Arsenic (ISO Only)	Not Accredited
AOAC 2015.01 Mod BAL-5000	Food	As, Cd, Hg, Pb	Not Accredited
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs	Not Accredited
	Biological by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)	Not Accredited
BAL-4101	Food by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)	Not Accredited
BAL-4201	Non-Potable Waters	Se(IV), Se(VI), SeCN, SeMet	Not Accredited
BAL-4300	Non-Potable Waters, Solid/Chemicals	Cr(VI)	Cr(VI)
SM 3500-Fe BAL-4500	Non-Potable Waters	Fe, Fe(II) (ISO Only)	Not Accredited
SM2340B	Non-Potable Waters	Hardness	Hardness
SM 2540G BAL-0501	Solids/Chemicals & Biological	% Dry Weight	% Dry Weight

(1) ISO/IEC 17025:2017 – Certificate Number ADE-1447.02

(2) Non-Governmental NELAC Institute 2016 Standard – Certificate Number ADE-1447.01

(3) Department of Defense/Energy Consolidated Quality Systems Manual v. 5.3 – Certificate Numbers ADE-1447 for DoD, ADE-1447.03 for DOE.

Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
21K0005-01	2111017-01	Soil	Sample	10/28/2021	11/02/2021
21K0005-02	2111017-02	Soil	Sample	10/28/2021	11/02/2021
21K0005-03	2111017-03	Soil	Sample	10/28/2021	11/02/2021
21K0005-04	2111017-04	Soil	Sample	10/28/2021	11/02/2021
21K0005-05	2111017-05	Soil	Sample	10/28/2021	11/02/2021
21K0005-06	2111017-06	Soil	Sample	10/28/2021	11/02/2021
21K0005-07	2111017-07	Soil	Sample	10/28/2021	11/02/2021
21K0005-08	2111017-08	Soil	Sample	10/28/2021	11/02/2021
21K0005-09	2111017-09	Soil	Sample	10/29/2021	11/02/2021
21K0005-10	2111017-10	Soil	Sample	10/29/2021	11/02/2021
21K0005-11	2111017-11	Soil	Sample	10/29/2021	11/02/2021
21K0005-12	2111017-12	Soil	Sample	10/29/2021	11/02/2021

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
%TS	Soil/Sediment	SOP BAL-0501	11/16/2021	11/17/2021	B213105	N/A
As	Soil/Sediment	EPA 6020B Mod	11/16/2021	11/18/2021	B213104	S211331
As(III)	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
As(V)	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
DMAs	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330
MMAs	Soil/Sediment	SOP BAL-4100	11/09/2021	11/16/2021	B213110	S211330

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
21K0005-01										
2111017-01	%TS	Soil	NA	56.97		0.01	0.05	%	B213105	N/A
2111017-01	As	Soil	dry	5.41		0.074	0.173	mg/kg	B213104	S211331
2111017-01	As(III)	Soil	dry	0.846		0.002	0.020	mg/kg	B213110	S211330
2111017-01	As(V)	Soil	dry	3.33		0.012	0.025	mg/kg	B213110	S211330
2111017-01	DMAs	Soil	dry	0.018	J	0.005	0.021	mg/kg	B213110	S211330
2111017-01	MMAs	Soil	dry	≤ 0.002	U	0.002	0.021	mg/kg	B213110	S211330
21K0005-02										
2111017-02	%TS	Soil	NA	66.84		0.01	0.04	%	B213105	N/A
2111017-02	As	Soil	dry	1.92		0.065	0.153	mg/kg	B213104	S211331
2111017-02	As(III)	Soil	dry	0.032		0.002	0.016	mg/kg	B213110	S211330
2111017-02	As(V)	Soil	dry	0.757		0.010	0.020	mg/kg	B213110	S211330
2111017-02	DMAs	Soil	dry	≤ 0.004	U	0.004	0.017	mg/kg	B213110	S211330
2111017-02	MMAs	Soil	dry	≤ 0.002	U	0.002	0.017	mg/kg	B213110	S211330
21K0005-09										
2111017-09	%TS	Soil	NA	77.93		0.01	0.04	%	B213105	N/A
2111017-09	As	Soil	dry	1.81		0.054	0.125	mg/kg	B213104	S211331
2111017-09	As(III)	Soil	dry	0.041	N	0.002	0.015	mg/kg	B213110	S211330
2111017-09	As(V)	Soil	dry	0.277	N	0.009	0.018	mg/kg	B213110	S211330
2111017-09	DMAs	Soil	dry	≤ 0.003	U	0.003	0.015	mg/kg	B213110	S211330
2111017-09	MMAs	Soil	dry	≤ 0.002	U	0.002	0.015	mg/kg	B213110	S211330
21K0005-10										
2111017-10	%TS	Soil	NA	81.02		0.02	0.05	%	B213105	N/A
2111017-10	As	Soil	dry	1.02		0.053	0.124	mg/kg	B213104	S211331
2111017-10	As(III)	Soil	dry	0.045		0.002	0.014	mg/kg	B213110	S211330
2111017-10	As(V)	Soil	dry	0.382		0.009	0.018	mg/kg	B213110	S211330
2111017-10	DMAs	Soil	dry	≤ 0.003	U	0.003	0.015	mg/kg	B213110	S211330
2111017-10	MMAs	Soil	dry	≤ 0.002	U	0.002	0.015	mg/kg	B213110	S211330
21K0005-11										
2111017-11	%TS	Soil	NA	68.86		0.02	0.06	%	B213105	N/A
2111017-11	As	Soil	dry	0.958		0.064	0.150	mg/kg	B213104	S211331
2111017-11	As(III)	Soil	dry	0.007	J	0.002	0.016	mg/kg	B213110	S211330
2111017-11	As(V)	Soil	dry	0.263		0.010	0.020	mg/kg	B213110	S211330
2111017-11	DMAs	Soil	dry	≤ 0.004	U	0.004	0.017	mg/kg	B213110	S211330
2111017-11	MMAs	Soil	dry	≤ 0.002	U	0.002	0.017	mg/kg	B213110	S211330

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
21K0005-12										
2111017-12	%TS	Soil	NA	83.55		0.009	0.03	%	B213105	N/A
2111017-12	As	Soil	dry	1.93		0.053	0.123	mg/kg	B213104	S211331
2111017-12	As(III)	Soil	dry	0.013	J	0.001	0.014	mg/kg	B213110	S211330
2111017-12	As(V)	Soil	dry	0.690		0.009	0.017	mg/kg	B213110	S211330
2111017-12	DMAs	Soil	dry	≤ 0.003	U	0.003	0.015	mg/kg	B213110	S211330
2111017-12	MMAs	Soil	dry	≤ 0.001	U	0.001	0.015	mg/kg	B213110	S211330

Accuracy & Precision Summary

Batch: B213104
Lab Matrix: Soil/Sediment
Method: EPA 6020B Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213104-BS1	**Blank Spike, (2116054)**						
	As		50.00	42.62	mg/kg	85% 75-125	
B213104-BS2	**Blank Spike, (2116054)**						
	As		50.00	42.05	mg/kg	84% 75-125	
B213104-SRM1	**Reference Material (2005027, CRM052-50G Loamy Clay)**						
	As		202.0	175.9	mg/kg	87% 75-125	
B213104-SRM2	**Reference Material (2005027, CRM052-50G Loamy Clay)**						
	As		202.0	171.7	mg/kg	85% 75-125	
B213104-DUP1	**Duplicate, (2111006-10)**						
	As	2.500		3.261	mg/kg		26% 30
B213104-MS1	**Matrix Spike, (2111006-10)**						
	As	2.500	70.75	62.49	mg/kg	85% 70-130	
B213104-MSD1	**Matrix Spike Duplicate, (2111006-10)**						
	As	2.500	66.07	58.06	mg/kg	84% 70-130	0.8% 30
B213104-DUP2	**Duplicate, (2111014-03)**						
	As	3.155		2.949	mg/kg		7% 30
B213104-MS2	**Matrix Spike, (2111014-03)**						
	As	3.155	60.46	54.11	mg/kg	84% 70-130	
B213104-MSD2	**Matrix Spike Duplicate, (2111014-03)**						
	As	3.155	60.97	53.97	mg/kg	83% 70-130	1% 30
B213104-DUP3	**Duplicate, (2111016-17)**						
	As	2.047		2.190	mg/kg		7% 30

Accuracy & Precision Summary

Batch: B213104
Lab Matrix: Soil/Sediment
Method: EPA 6020B Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213104-MS3	**Matrix Spike, (2111016-17)**						
	As	2.047	55.08	48.39	mg/kg	84% 70-130	
B213104-MSD3	**Matrix Spike Duplicate, (2111016-17)**						
	As	2.047	55.57	47.79	mg/kg	82% 70-130	2% 30
B213104-DUP4	**Duplicate, (2111017-02)**						
	As	1.917		1.638	mg/kg		16% 30
B213104-MS4	**Matrix Spike, (2111017-02)**						
	As	1.917	66.52	58.45	mg/kg	85% 70-130	
B213104-MSD4	**Matrix Spike Duplicate, (2111017-02)**						
	As	1.917	67.17	59.52	mg/kg	86% 70-130	0.9% 30

Accuracy & Precision Summary

Batch: B213105
Lab Matrix: Soil/Sediment
Method: SOP BAL-0501

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213105-DUP1	**Duplicate, (2111006-10)**						
	%TS	69.39		69.06	%		0.5% 15
B213105-DUP2	**Duplicate, (2111014-03)**						
	%TS	81.57		81.45	%		0.2% 15
B213105-DUP3	**Duplicate, (2111016-17)**						
	%TS	89.00		87.17	%		2% 15
B213105-DUP4	**Duplicate, (2111017-02)**						
	%TS	66.84		61.96	%		8% 15

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-BS1	**Blank Spike, As (V) (1941027)**						
	As(V)		9.706	8.361	mg/kg	86% 75-125	
B213110-BS2	**Blank Spike, As (III), MMA, DMA (2146001)**						
	As(III)		10.00	9.329	mg/kg	93% 75-125	
	DMAs		10.42	11.08	mg/kg	106% 75-125	
	MMAs		10.00	9.943	mg/kg	99% 75-125	
B213110-DUP1	**Duplicate, (2111006-17)**						
	As(III)	0.077		0.091	mg/kg		17% 25
	As(V)	1.802		2.155	mg/kg		18% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS1	**Matrix Spike, As (V) (2111006-17)**						
	As(V)	1.802	15.24	14.03	mg/kg	80% 75-125	
B213110-MS2	**Matrix Spike, As (III), MMA, DMA (2111006-17)**						
	As(III)	0.077	16.37	13.50	mg/kg	82% 75-125	
	DMAs	ND	17.06	16.30	mg/kg	96% 75-125	
	MMAs	ND	16.37	15.04	mg/kg	92% 75-125	
B213110-MSD1	**Matrix Spike Duplicate, As (V) (2111006-17)**						
	As(V)	1.802	15.12	14.02	mg/kg	81% 75-125	0.7% 25
B213110-MSD2	**Matrix Spike Duplicate, As (III), MMA, DMA (2111006-17)**						
	As(III)	0.077	15.88	13.84	mg/kg	87% 75-125	6% 25
	DMAs	ND	16.55	16.62	mg/kg	100% 75-125	5% 25
	MMAs	ND	15.88	15.46	mg/kg	97% 75-125	6% 25
B213110-DUP2	**Duplicate, (2111015-02)**						
	As(III)	ND		ND	mg/kg		N/C 25
	As(V)	0.111		0.114	mg/kg		3% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-MS3	**Matrix Spike, As (V) (2111015-02)**						
	As(V)	0.111	11.59	10.70	mg/kg	91% 75-125	
B213110-MS4	**Matrix Spike, As (III), MMA, DMA (2111015-02)**						
	As(III)	ND	11.82	5.843	mg/kg	*49%* 75-125	
	DMAs	ND	12.31	11.85	mg/kg	96% 75-125	
	MMAs	ND	11.82	10.82	mg/kg	92% 75-125	
B213110-MSD3	**Matrix Spike Duplicate, As (V) (2111015-02)**						
	As(V)	0.111	11.17	10.17	mg/kg	90% 75-125	2% 25
B213110-MSD4	**Matrix Spike Duplicate, As (III), MMA, DMA (2111015-02)**						
	As(III)	ND	11.44	5.623	mg/kg	*49%* 75-125	0.6% 25
	DMAs	ND	11.92	12.06	mg/kg	101% 75-125	5% 25
	MMAs	ND	11.44	11.01	mg/kg	96% 75-125	5% 25
B213110-DUP3	**Duplicate, (2111016-25)**						
	As(III)	0.009		0.009	mg/kg		3% 25
	As(V)	0.304		0.368	mg/kg		19% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS5	**Matrix Spike, As (V) (2111016-25)**						
	As(V)	0.304	12.95	11.00	mg/kg	83% 75-125	
B213110-MS6	**Matrix Spike, As (III), MMA, DMA (2111016-25)**						
	As(III)	0.009	13.27	11.34	mg/kg	85% 75-125	
	DMAs	ND	13.82	13.95	mg/kg	101% 75-125	
	MMAs	ND	13.27	12.87	mg/kg	97% 75-125	
B213110-MSD5	**Matrix Spike Duplicate, As (V) (2111016-25)**						
	As(V)	0.304	13.05	11.12	mg/kg	83% 75-125	0.3% 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-MSD6	**Matrix Spike Duplicate, As (III), MMA, DMA (2111016-25)**						
	As(III)	0.009	13.35	11.52	mg/kg	86% 75-125	0.9% 25
	DMAs	ND	13.92	13.90	mg/kg	100% 75-125	1% 25
	MMAs	ND	13.35	12.88	mg/kg	96% 75-125	0.6% 25
B213110-DUP4	**Duplicate, (2111017-09)**						
	As(III)	0.041		0.035	mg/kg		17% 25
	As(V)	0.277		0.256	mg/kg		8% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-DUP5	**Duplicate, (2111017-09)**						
	As(III)	0.041		0.008	mg/kg		*132%* 25
	As(V)	0.277		0.298	mg/kg		7% 25
	DMAs	ND		ND	mg/kg		N/C 25
	MMAs	ND		ND	mg/kg		N/C 25
B213110-MS7	**Matrix Spike, As (V) (2111017-09)**						
	As(V)	0.277	11.58	10.34	mg/kg	87% 75-125	
B213110-MS8	**Matrix Spike, As (III), MMA, DMA (2111017-09)**						
	As(III)	0.041	12.36	6.383	mg/kg	*51%* 75-125	
	DMAs	ND	12.88	13.24	mg/kg	103% 75-125	
	MMAs	ND	12.36	12.00	mg/kg	97% 75-125	
B213110-MSD7	**Matrix Spike Duplicate, As (V) (2111017-09)**						
	As(V)	0.277	11.93	10.91	mg/kg	89% 75-125	3% 25
B213110-MSD8	**Matrix Spike Duplicate, As (III), MMA, DMA (2111017-09)**						
	As(III)	0.041	12.57	7.696	mg/kg	*61%* 75-125	17% 25
	DMAs	ND	13.10	12.80	mg/kg	98% 75-125	5% 25
	MMAs	ND	12.57	11.70	mg/kg	93% 75-125	4% 25

Accuracy & Precision Summary

Batch: B213110
Lab Matrix: Soil/Sediment
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B213110-PS1	**Post Spike, (2111017-09)**						
	As(III)	0.041	0.8068	0.805	mg/kg	95% 75-125	
	As(V)	0.277	0.7497	1.033	mg/kg	101% 75-125	
	DMAs	ND	0.7721	0.772	mg/kg	100% 75-125	
	MMAs	ND	0.7721	0.772	mg/kg	100% 75-125	

Method Blanks & Reporting Limits

Batch: B213104
Matrix: Soil/Sediment
Method: EPA 6020B Mod
Analyte: As

Sample	Result	Units
B213104-BLK1	0.001	mg/kg
B213104-BLK2	0.002	mg/kg
B213104-BLK3	0.001	mg/kg
B213104-BLK4	-0.00005	mg/kg

Average: 0.001
Limit: 0.105

MDL: 0.045
MRL: 0.105

Method Blanks & Reporting Limits

Batch: B213105
Matrix: Soil/Sediment
Method: SOP BAL-0501
Analyte: %TS

Sample	Result	Units
B213105-BLK1	-0.004	%
B213105-BLK2	0.04	%

Average: 0.02
Limit: 0.05

MDL: 0.01
MRL: 0.05

Method Blanks & Reporting Limits

Batch: B213110
Matrix: Soil/Sediment
Method: SOP BAL-4100
Analyte: As(III)

Sample	Result	Units
B213110-BLK1	0.0007	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.012
MDL: 0.001
MRL: 0.012

Analyte: As(V)

Sample	Result	Units
B213110-BLK1	0.006	mg/kg
B213110-BLK2	0.006	mg/kg
B213110-BLK3	0.006	mg/kg
B213110-BLK4	0.005	mg/kg

Average: 0.006
Limit: 0.015
MDL: 0.007
MRL: 0.014

Analyte: DMAs

Sample	Result	Units
B213110-BLK1	0.00	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.013
MDL: 0.003
MRL: 0.012

Method Blanks & Reporting Limits

Analyte: MMAs

Sample	Result	Units
B213110-BLK1	0.00	mg/kg
B213110-BLK2	0.00	mg/kg
B213110-BLK3	0.00	mg/kg
B213110-BLK4	0.00	mg/kg

Average: 0.000
Limit: 0.013

Standard Deviation: 0.000
Limit: 0.001

MDL: 0.001
MRL: 0.012

Sample Containers

Lab ID: 2111017-01
Sample: 21K0005-01
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-02
Sample: 21K0005-02
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-03
Sample: 21K0005-03
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-04
Sample: 21K0005-04
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-05
Sample: 21K0005-05
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-06
Sample: 21K0005-06
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Sample Containers

Lab ID: 2111017-07
Sample: 21K0005-07
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-08
Sample: 21K0005-08
Report Matrix: Soil
Sample Type: Sample
Collected: 10/28/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-09
Sample: 21K0005-09
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-10
Sample: 21K0005-10
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-11
Sample: 21K0005-11
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Lab ID: 2111017-12
Sample: 21K0005-12
Report Matrix: Soil
Sample Type: Sample
Collected: 10/29/2021
Received: 11/02/2021

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	N/A	N/A	None	N/A	N/A	Cooler - 2111017

Shipping Containers

Cooler - 2111017

Received: November 2, 2021 9:45
Tracking No: 7750 8480 6776 via FedEx
Coolant Type: Blue Ice
Temperature: 5.6 °C

Description: Cooler
Damaged in transit? No
Returned to client? No
Comments: IR#31

Custody seals present? No
Custody seals intact? No
COC present? Yes

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0005

SENDING LABORATORY:

Con-Test, a Pace Analytical Laboratory
39 Spruce Street
East Longmeadow, MA 01028
Phone: 413.525.2332
Fax: 413.525.6405
Project Manager: Kaitlyn A. Feliciano

RECEIVING LABORATORY:

Brooks Applied Labs
18804 North Creek Parkway, Suite 100
Bothell, WA 98011
Phone :(206) 632-6206
Fax:

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0005-01	**Soil**	**Sampled:10/28/21 15:20**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:20		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-02	**Soil**	**Sampled:10/28/21 15:25**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:25		
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-03	**Soil**	**Sampled:10/28/21 15:30**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:30		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-04	**Soil**	**Sampled:10/28/21 15:35**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:35		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-05	**Soil**	**Sampled:10/28/21 15:20**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:20		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-06	**Soil**	**Sampled:10/28/21 15:25**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:25		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Released By	Date	Received By	Date
	11/1/21 1600	BAL	11/02/21 09:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Con-Test, a Pace Analytical Laboratory

21K0005

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 21K0005-07	**Soil**	**Sampled:10/28/21 15:30**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:30		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-08	**Soil**	**Sampled:10/28/21 15:35**		
S-Arsenic Speciation	11/05/21 15:30	04/26/22 15:35		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-09	**Soil**	**Sampled:10/29/21 08:35**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 08:35		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-10	**Soil**	**Sampled:10/29/21 08:40**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 08:40		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-11	**Soil**	**Sampled:10/29/21 08:50**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 08:50		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				
Sample ID: 21K0005-12	**Soil**	**Sampled:10/29/21 08:55**		
S-Arsenic Speciation	11/05/21 15:30	04/27/22 08:55		HOLD
Containers Supplied:				
4 oz amber glass jar (A)				

Please only analyze highlighted samples. All others on hold pending authorization from Pace - New England. Thank you.

Released By	Date	Received By	Date
[signature]	11/1/21 1600	[signature] BAL	11/02/21 09:45
Released By	Date	Received By	Date

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November 5, 2021

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: r2021054.000.004
Laboratory Work Order Number: 21J1920

Enclosed are results of analyses for samples as received by the laboratory on October 29, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1920

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-SB01-0510-102921	21J1920-01	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-SB02-1015-102921	21J1920-02	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC3-SB03-1015-102921	21J1920-03	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 7196A

Qualifications:

MS-16

For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1920-01[SC3-SB01-0510-102921], B293674-MS2, B293674-MS3, B293674-MSD1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB01-0510-102921 | Sampled: 10/29/2021 12:25

Sample ID: 21J1920-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:06	QNW
Chromium	2.1	0.77	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:06	QNW
Chromium, Trivalent	2.1		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:06	QNW
Copper	1.2	0.77	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:06	QNW
Iron	2300	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:06	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB01-0510-102921 | Sampled: 10/29/2021 12:25

Sample ID: 21J1920-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.6		% Wt	1		SM 2540G	11/2/21	11/2/21 17:12	DRL
Hexavalent Chromium	ND	0.19	mg/Kg dry	1	MS-16	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	140		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @21.5°C	5.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB01-0510-102921
Sampled: 10/29/2021 12:25

Sample ID: 21J1920-01

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	36.9	9.8	mg/kg	1		EPA 6010		11/3/21 18:04	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB02-1015-102921 | Sampled: 10/29/2021 14:15

Sample ID: 21J1920-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:11	QNW
Chromium	2.2	0.79	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:11	QNW
Chromium, Trivalent	2.2		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:11	QNW
Copper	1.3	0.79	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:11	QNW
Iron	1500	20	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:11	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB02-1015-102921 | Sampled: 10/29/2021 14:15

Sample ID: 21J1920-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.8		% Wt	1		SM 2540G	11/2/21	11/2/21 17:12	DRL
Hexavalent Chromium	ND	0.19	mg/Kg dry	1		SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	160		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @21.2°C	5.9		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB02-1015-102921
Sampled: 10/29/2021 14:15

Sample ID: 21J1920-02

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	43.4	8.8	mg/kg	1		EPA 6010		11/3/21 18:20	PSR

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB03-1015-102921 | Sampled: 10/29/2021 13:15

Sample ID: 21J1920-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.3	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:15	QNW
Chromium	6.1	0.86	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:15	QNW
Chromium, Trivalent	6.1		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:15	QNW
Copper	3.7	0.86	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:15	QNW
Iron	6900	22	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:15	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB03-1015-102921 | Sampled: 10/29/2021 13:15

Sample ID: 21J1920-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.4		% Wt	1		SM 2540G	11/2/21	11/2/21 17:12	DRL
Hexavalent Chromium	ND	0.20	mg/Kg dry	1		SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	160		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.7°C	4.9		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1920

Date Received: 10/29/2021

Field Sample #: SC3-SB03-1015-102921
Sampled: 10/29/2021 13:15

Sample ID: 21J1920-03

Sample Matrix: Soil

Miscellaneous Inorganic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	12.8	7.2	mg/kg	1		EPA 6010		11/3/21 18:24	PSR

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1920-01 [SC3-SB01-0510-102921]	B293760	11/02/21
21J1920-02 [SC3-SB02-1015-102921]	B293760	11/02/21
21J1920-03 [SC3-SB03-1015-102921]	B293760	11/02/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1920-01 [SC3-SB01-0510-102921]	B293629	20.0	10/29/21
21J1920-02 [SC3-SB02-1015-102921]	B293629	20.0	10/29/21
21J1920-03 [SC3-SB03-1015-102921]	B293629	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1920-01 [SC3-SB01-0510-102921]	B293798	1.56	50.0	11/02/21
21J1920-02 [SC3-SB02-1015-102921]	B293798	1.54	50.0	11/02/21
21J1920-03 [SC3-SB03-1015-102921]	B293798	1.52	50.0	11/02/21

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1920-01 [SC3-SB01-0510-102921]	B293674	2.57	100	11/01/21
21J1920-02 [SC3-SB02-1015-102921]	B293674	2.51	100	11/01/21
21J1920-03 [SC3-SB03-1015-102921]	B293674	2.57	100	11/01/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1920-01 [SC3-SB01-0510-102921]	B293626	20.0	10/29/21
21J1920-02 [SC3-SB02-1015-102921]	B293626	20.0	10/29/21
21J1920-03 [SC3-SB03-1015-102921]	B293626	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1920-01 [SC3-SB01-0510-102921]	B293798	1.56	11/02/21
21J1920-02 [SC3-SB02-1015-102921]	B293798	1.54	11/02/21
21J1920-03 [SC3-SB03-1015-102921]	B293798	1.52	11/02/21

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293798 - SW-846 3050B										
Blank (B293798-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	ND	3.2	mg/Kg wet							
Chromium	ND	0.64	mg/Kg wet							
Copper	ND	0.64	mg/Kg wet							
Iron	ND	16	mg/Kg wet							
LCS (B293798-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.9	mg/Kg wet	170		94.3	82.9-117.6			
Chromium	101	2.0	mg/Kg wet	101		100	82.1-117.8			
Copper	159	2.0	mg/Kg wet	149		106	83.9-116.1			
Iron	9000	50	mg/Kg wet	14100		63.8	60-139.7			
LCS Dup (B293798-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.8	mg/Kg wet	170		94.0	82.9-117.6	0.272	30	
Chromium	98.4	2.0	mg/Kg wet	101		97.4	82.1-117.8	2.84	30	
Copper	152	2.0	mg/Kg wet	149		102	83.9-116.1	4.45	30	
Iron	9140	49	mg/Kg wet	14100		64.8	60-139.7	1.54	30	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293626 - SW-846 9045C										
LCS (B293626-BS1)				Prepared & Analyzed: 10/29/21						
pH	6.03		pH Units	6.00		101	90-110			
LCS (B293626-BS2)				Prepared & Analyzed: 10/29/21						
pH	6.01		pH Units	6.00		100	90-110			
Batch B293674 - SW-846 7196A										
Blank (B293674-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B293674-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	95	4.0	mg/Kg wet	92.4		103	80-120			
LCS Dup (B293674-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	96	3.7	mg/Kg wet	85.3		112	80-120	1.07	20	
Matrix Spike (B293674-MS1)	**Source: 21J1920-01**			Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	41	0.93	mg/Kg dry	46.5	ND	87.6	85-115			
Matrix Spike (B293674-MS2)	**Source: 21J1920-01**			Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	22	1.9	mg/Kg dry	46.3	ND	**46.9** *	85-115			MS-16
Matrix Spike (B293674-MS3)	**Source: 21J1920-01**			Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	280	18	mg/Kg dry	738	ND	**38.2** *	85-115			MS-16
Matrix Spike Dup (B293674-MSD1)	**Source: 21J1920-01**			Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	37	0.92	mg/Kg dry	46.1	ND	**81.1** *	85-115	8.52	35	MS-16

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-16	For solid method SW846-7196A, the matrix spike is outside of control limits. pH and ORP results were indicative of reducing conditions. Reanalysis is not required. Analysis is in control based on LCS recoveries.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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2131920

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CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Mahlobeth + Associates
Address: 105 Central St, 4100, Stoneham, MA
Phone: 781-275-6050
Project Name: Solar Carver
Project Location: Carver, MA
Project Number: R2021054.000.004
Project Manager: Steve Vetere
Con-Test Quote Name/Number: 09076.23
Invoice Recipient: S. Vetere
Sampled By: DWM

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other:
CLP Like Data Pkg Required: [ ]
Email To:
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	Total As, Cr, Ca, S, Fe	PH, ORP	Cr3+, Cr6+	# of Containers	Preservation Code	Container Code
01	SC3-SB01-0510-102921	10/29/21	1225	X		S	U	X	X		1	I	G
02	SC3-SB02-1015-102921		1410 ~~1050~~	X		S	U	X	X		1	I	G
03	SC3-SB03-1015-102921	~~1315~~	1315	X		S	U	X	X		1	I	G
01	SC3-SB01-0510-102921		1225		X	S	U			X			
02	SC3-SB02-1015-102921		(DW) 1410 ~~1050~~		X	S	U			X			
03	SC3-SB03-1015-102921	↓	1315		X	S	U			X			

ANALYSIS REQUESTED

Comments: Plastic Ziplock used for total metals on SB02 + SB03

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals Samples
O Field Filtered
O Lab to Filter

Orthophosphate Samples
O Field Filtered
O Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

	Date/Time:
Relinquished by: (signature)	10/29/21 1550
Received by: (signature)	10-29-21 15[illegible]
Relinquished by: (signature)	10-29-21 19[illegible]
Received by: (signature)	19[illegible]
Relinquished by: (signature)	10/29/21 2035
Received by: (signature)	10/29/21 2035

Detection Limit Requirements
MA
CT
Other:

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

Level 2 Data Package

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Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] AIHA-LAP, LLC

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Mahn + Associates
Address: 105 Central St, 4100, Stoneham, MA
Phone: 781-275-6050
Project Name: Solar Carver
Project Location: Carver, MA
Project Number: R2021054.000.004
Project Manager: Steve Vetere
Con-Test Quote Name/Number: 0902623
Invoice Recipient: S. Vetere
Sampled By: DWM

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other:
CLP Like Data Pkg Required: [ ]
Email To:
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	AS Speciation	I	G
04	SC3-SB01-0510-102921	10/29/21	1225		X	S	U	X		
05	SC3-SB02-1015-102921	↓	~~1350~~ 1410		X	S	U	X		
06	SC3-SB03-1015-102921	↓	1315		X	S	U	X		

Comments: ~~Plastic Ziploc bag used for dissolved metals on SB02 + SB03~~ DWM

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Relinquished by: (signature)	Date/Time:
N Thurst	10/29/21 1550
Received by: (signature) Paul Chatterton	Date/Time: 10-29-21 15[illegible]0
Relinquished by: (signature) Paul Chatterton	Date/Time: 10-29-21 191[illegible]
[illegible]ived by: (signature) [illegible] 10/29/21	Date/Time: 1915
[illegible]quished by: (signature) [illegible] 10/29/21	Date/Time: 2035
[illegible]ived by: (signature) 5.4.2.4.2.9 4.2°	Date/Time: 10/29/21 2035

Detection Limit Requirements
MA
CT
Other:

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

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Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] AIHA-LAP, LLC

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Macbeth

Received By RLF Date 10/29/21 Time 2035

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp -5.4, 2.4, 2.9, 4.2°C

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? LA Were Samples Tampered with? LA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Cassie

Is there enough Volume? T

Is there Headspace where applicable? LA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid LA Base LA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	1
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	2
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag	2	Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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November 5, 2021

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: r2021054.000.004
Laboratory Work Order Number: 21J1922

Enclosed are results of analyses for samples as received by the laboratory on October 29, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 11/5/2021

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.000.004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1922

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-SB01-1015-102921	21J1922-01	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-SB02-1015-102921	21J1922-02	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	
SC1-SB03-1015-102921	21J1922-03	Soil		ASTM D-4239	NC 618
				EPA 6010	NC 618
				SM 2540G	
				SM2580 A	
				SW-846 6010D	
				SW-846 7196A	
				SW-846 9045C	
				Tri Chrome Calc.	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 7196A

Qualifications:

W-06

Elevated method reporting limit due to intense color of sample

Analyte & Samples(s) Qualified:

Hexavalent Chromium

21J1922-01[SC1-SB01-1015-102921], 21J1922-02[SC1-SB02-1015-102921], 21J1922-03[SC1-SB03-1015-102921]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB01-1015-102921 | Sampled: 10/29/2021 09:45

Sample ID: 21J1922-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:20	QNW
Chromium	2.0	0.80	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:20	QNW
Chromium, Trivalent	2.0		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:20	QNW
Copper	ND	0.80	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:20	QNW
Iron	1900	20	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:20	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB01-1015-102921 | Sampled: 10/29/2021 09:45

Sample ID: 21J1922-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:12	DRL
Hexavalent Chromium	ND	0.98	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	190		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @21°C	5.5		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB01-1015-102921
Sampled: 10/29/2021 09:45

Sample ID: 21J1922-01

Sample Matrix: Soil

Sulfur

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	ND	8.9	mg/kg	1		EPA 6010	11/3/21	11/3/21 18:36	PLA

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB02-1015-102921 | Sampled: 10/29/2021 10:50

Sample ID: 21J1922-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:25	QNW
Chromium	3.0	0.73	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:25	QNW
Chromium, Trivalent	3.0		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:25	QNW
Copper	2.0	0.73	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:25	QNW
Iron	2400	18	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:25	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB02-1015-102921 | Sampled: 10/29/2021 10:50

Sample ID: 21J1922-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.9		% Wt	1		SM 2540G	11/2/21	11/2/21 17:12	DRL
Hexavalent Chromium	ND	0.89	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	160		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @20.5°C	5.6		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB02-1015-102921
Sampled: 10/29/2021 10:50

Sample ID: 21J1922-02

Sample Matrix: Soil

Sulfur

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	15.8	9.4	mg/kg	1		EPA 6010	11/3/21	11/3/21 18:40	PLA

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB03-1015-102921 | Sampled: 10/29/2021 07:50

Sample ID: 21J1922-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:30	QNW
Chromium	4.3	0.75	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:30	QNW
Chromium, Trivalent	4.3		mg/Kg	1		Tri Chrome Calc.	11/2/21	11/3/21 14:30	QNW
Copper	2.9	0.75	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:30	QNW
Iron	3100	19	mg/Kg dry	1		SW-846 6010D	11/2/21	11/3/21 14:30	QNW

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Project Location: Carver, MA | Sample Description: | Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB03-1015-102921 | Sampled: 10/29/2021 07:50

Sample ID: 21J1922-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.3		% Wt	1		SM 2540G	11/2/21	11/2/21 17:12	DRL
Hexavalent Chromium	ND	0.91	mg/Kg dry	5	W-06	SW-846 7196A	11/1/21	11/2/21 12:30	IS
Oxidation/Reduction Potential	180		mV	1		SM2580 A	10/29/21	10/29/21 23:00	DJM
pH @19.9°C	7.0		pH Units	1		SW-846 9045C	10/29/21	10/29/21 23:00	DJM

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Project Location: Carver, MA
Sample Description:
Work Order: 21J1922

Date Received: 10/29/2021

Field Sample #: SC1-SB03-1015-102921
Sampled: 10/29/2021 07:50

Sample ID: 21J1922-03

Sample Matrix: Soil

Sulfur

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfur	ND	8.9	mg/kg	1		EPA 6010	11/3/21	11/3/21 18:44	PLA

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1922-01 [SC1-SB01-1015-102921]	B293760	11/02/21
21J1922-02 [SC1-SB02-1015-102921]	B293760	11/02/21
21J1922-03 [SC1-SB03-1015-102921]	B293760	11/02/21

SM2580 A

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1922-01 [SC1-SB01-1015-102921]	B293629	20.0	10/29/21
21J1922-02 [SC1-SB02-1015-102921]	B293629	20.0	10/29/21
21J1922-03 [SC1-SB03-1015-102921]	B293629	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1922-01 [SC1-SB01-1015-102921]	B293798	1.54	50.0	11/02/21
21J1922-02 [SC1-SB02-1015-102921]	B293798	1.57	50.0	11/02/21
21J1922-03 [SC1-SB03-1015-102921]	B293798	1.54	50.0	11/02/21

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1922-01 [SC1-SB01-1015-102921]	B293674	2.51	100	11/01/21
21J1922-02 [SC1-SB02-1015-102921]	B293674	2.57	100	11/01/21
21J1922-03 [SC1-SB03-1015-102921]	B293674	2.54	100	11/01/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1922-01 [SC1-SB01-1015-102921]	B293626	20.0	10/29/21
21J1922-02 [SC1-SB02-1015-102921]	B293626	20.0	10/29/21
21J1922-03 [SC1-SB03-1015-102921]	B293626	20.0	10/29/21

Prep Method: SW-846 3050B **Analytical Method: Tri Chrome Calc.**

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1922-01 [SC1-SB01-1015-102921]	B293798	1.54	11/02/21
21J1922-02 [SC1-SB02-1015-102921]	B293798	1.57	11/02/21
21J1922-03 [SC1-SB03-1015-102921]	B293798	1.54	11/02/21

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293798 - SW-846 3050B										
Blank (B293798-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	ND	3.2	mg/Kg wet							
Chromium	ND	0.64	mg/Kg wet							
Copper	ND	0.64	mg/Kg wet							
Iron	ND	16	mg/Kg wet							
LCS (B293798-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.9	mg/Kg wet	170		94.3	82.9-117.6			
Chromium	101	2.0	mg/Kg wet	101		100	82.1-117.8			
Copper	159	2.0	mg/Kg wet	149		106	83.9-116.1			
Iron	9000	50	mg/Kg wet	14100		63.8	60-139.7			
LCS Dup (B293798-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Arsenic	160	9.8	mg/Kg wet	170		94.0	82.9-117.6	0.272	30	
Chromium	98.4	2.0	mg/Kg wet	101		97.4	82.1-117.8	2.84	30	
Copper	152	2.0	mg/Kg wet	149		102	83.9-116.1	4.45	30	
Iron	9140	49	mg/Kg wet	14100		64.8	60-139.7	1.54	30	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293626 - SW-846 9045C										
LCS (B293626-BS1)				Prepared & Analyzed: 10/29/21						
pH	6.03		pH Units	6.00		101	90-110			
LCS (B293626-BS2)				Prepared & Analyzed: 10/29/21						
pH	6.01		pH Units	6.00		100	90-110			
Batch B293674 - SW-846 7196A										
Blank (B293674-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B293674-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	95	4.0	mg/Kg wet	92.4		103	80-120			
LCS Dup (B293674-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Hexavalent Chromium	96	3.7	mg/Kg wet	85.3		112	80-120	1.07	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
W-06	Elevated method reporting limit due to intense color of sample

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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21I922

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Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Mahar + Associates
Address: 105 Central St, 4100, Stoneham, MA
Phone: 781-275-6050
Project Name: Solar Carver
Project Location: Carver, MA
Project Number: R2021054.000.004
Project Manager: Steve Vetere
Con-Test Quote Name/Number: 0902623
Invoice Recipient:
Sampled By: D w m

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [ ] EXCEL [ ]
Other:
CLP Like Data Pkg Required: [ ]
Email To:
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	Total As, Cr, Cu, Fe	PH, ORP	Cr 3+, Cr 6+	# of Containers	[2] Preservation Code	[3] Container Code
01	SC1-SB01-1015-102921	10/29/21	0945	X		S	U	X	X		1	I	G
02	SC1-SB02-1015-102921	↓	1050	X		S	U	X	X		1	I	G
03	SC1-SB03-1015-102921	↓	0750	X		S	U	X	X		1	I	G
	~~SC3-SB01-0510-102921~~												
01	SC1-SB01-1015-102921	10/29/21	0945		X	S	U			X			
02	SC1-SB02-1015-102921	↓	1050		X	S	U			X			
03	SC1-SB03-1015-102921	↓	0750		X	S	U			X			

Comments: Plastic ziplock used for total Metals on SC1-SB03-1015-102921

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals Samples
O Field Filtered
O Lab to Filter

Orthophosphate Samples
O Field Filtered
O Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Relinquished by: (signature)	Date/Time:
	10/29/21 1550
Received by: (signature)	Date/Time:
	10/29/21 15[illegible]
Relinquished by: (signature)	Date/Time:
	10/29/21 191[illegible]
Received by: (signature)	Date/Time:
Fraser 10/29/21	1915
Relinquished by: (signature)	Date/Time:
Fraser 10/29/21	2035
Received by: (signature) 5.4.2.9.2-4	Date/Time:
4.2C	10/29/21 2035

Detection Limit Requirements
MA
CT
Other:

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

Standard level 2 Data Package

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Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] *AIHA-LAP,LLC*

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

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con-test ANALYTICAL LABORATORY

21J1922

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CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name: Mabbett & Associates
Address: 105 Central St, Suite 4100, Stoneham, MA
Phone: 781-275-6050
Project Name: Solar Carver
Project Location: Carver, MA
Project Number: R2021654.000.004
Project Manager: Steve Vetere
Con-Test Quote Name/Number: 090623
Invoice Recipient:
Sampled By: DWM

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other:
CLP Like Data Pkg Required: [ ]
Email To:
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	As Speciation													# of Containers
04	SC1-SB01-1015-102921	10/29/21	0945		X	S	U	X													[2] Preservation Code
05	SC1-SB02-1015-102921	↓	1050		X	S	U	X													[3] Container Code
06	SC1-SB03-1015-102921	↓	0750		X	S	U	X													

ANALYSIS REQUESTED

Dissolved Metals Samples
O Field Filtered
O Lab to Filter

Orthophosphate Samples
O Field Filtered
O Lab to Filter

Comments:

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 10/29/21 1550	
Received by: (signature)	Date/Time: 10/29/21 1550	
Relinquished by: (signature)	Date/Time: 10/29/21 1915	
Received by: (signature)	Date/Time: 10/29/21	
Relinquished by: (signature)	Date/Time: 2035	
Received by: (signature) 5.4, 2.9, 2.4 4.2°	Date/Time: 10/29/21 2035	

Detection Limit Requirements
MA
CT
Other

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

Level 2 Data Package

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Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] *AIHA-LAP, LLC*

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client McCorkle

Received By RLF Date 10/29/21 Time 2035

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp -5.4, 2.4, 2.9, 4.2c

By Blank # _____ Actual Temp -

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Cassie

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid NA Base NA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	2
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	2
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag	1	Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

Cranberry Analytical Data Reports

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Environment Testing New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-1710-1
Client Project/Site: SC-3 - Carver, MA

For:
Mabbett & Associates, Inc.
105 Central Street
Suite 4100
Stoneham, Massachusetts 02180

Attn: Mr. Stephen Vetere

Authorized for release by:
11/9/2021 3:28:24 PM

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1710-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^6+	Interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-1710-1

Laboratory: Eurofins Environment Testing New England

Narrative

Job Narrative
620-1710-1

Comments
No additional comments.

Receipt
The samples were received on 10/29/2021 6:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4º C.

Metals
Method 6010D: The initial calibration verification (ICV) and continuing calibration verification (CCV) associated with batch 620-5331 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. All samples with detects have been reanalyzed under passing QC. The associated samples are impacted: SC3-S2-FR-P100-102921 (620-1710-1), SC3-S2-FR-P101-102921 (620-1710-2), SC3-S2-FR-P103-102921 (620-1710-3), SC3-S2-FR-P106-102921 (620-1710-4), SC3-S2-FR-P200-102921 (620-1710-5), SC3-S2-FR-P201-102921 (620-1710-6), SC3-S2-FR-P203-102921 (620-1710-7), SC3-S2-FR-P206-102921 (620-1710-8), SC3-S2-FR-P300-102921 (620-1710-9), SC3-S2-FR-P301-102921 (620-1710-10), SC3-S2-FR-P303-102921 (620-1710-11), SC3-S2-FR-P306-102921 (620-1710-12), SC3-N3-FR-P400-102921 (620-1710-13), SC3-N3-FR-P401-102921 (620-1710-14), SC3-N3-FR-P403-102921 (620-1710-15), SC3-N3-FR-P406-102921 (620-1710-16), SC3-M1-FR-P500-102921 (620-1710-17), SC3-M1-FR-P501-102921 (620-1710-18), SC3-M1-FR-P503-102921 (620-1710-19), SC3-M1-FR-P506-102921 (620-1710-20), SC3-N1-FR-CTLP-102921 (620-1710-21) and SC3-N4-FR-CTLP-102921 (620-1710-22).

Methods 6010, 6010D: The laboratory control sample (LCS) associated with preparation batch 620-5242 and analytical batch 620-5395 was outside acceptance criteria for sulfure. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Methods 6010, 6010D: The following samples were diluted due to the nature of the sample matrix: SC3-M1-FR-P500-102921 (620-1710-17), SC3-M1-FR-P501-102921 (620-1710-18), SC3-M1-FR-P503-102921 (620-1710-19), SC3-M1-FR-P506-102921 (620-1710-20), SC3-N1-FR-CTLP-102921 (620-1710-21) and SC3-N4-FR-CTLP-102921 (620-1710-22). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1710-1

Client Sample ID: SC3-S2-FR-P100-102921 — **Lab Sample ID: 620-1710-1**

No Detections.

Client Sample ID: SC3-S2-FR-P101-102921 — **Lab Sample ID: 620-1710-2**

No Detections.

Client Sample ID: SC3-S2-FR-P103-102921 — **Lab Sample ID: 620-1710-3**

No Detections.

Client Sample ID: SC3-S2-FR-P106-102921 — **Lab Sample ID: 620-1710-4**

No Detections.

Client Sample ID: SC3-S2-FR-P200-102921 — **Lab Sample ID: 620-1710-5**

No Detections.

Client Sample ID: SC3-S2-FR-P201-102921 — **Lab Sample ID: 620-1710-6**

No Detections.

Client Sample ID: SC3-S2-FR-P203-102921 — **Lab Sample ID: 620-1710-7**

No Detections.

Client Sample ID: SC3-S2-FR-P206-102921 — **Lab Sample ID: 620-1710-8**

No Detections.

Client Sample ID: SC3-S2-FR-P300-102921 — **Lab Sample ID: 620-1710-9**

No Detections.

Client Sample ID: SC3-S2-FR-P301-102921 — **Lab Sample ID: 620-1710-10**

No Detections.

Client Sample ID: SC3-S2-FR-P303-102921 — **Lab Sample ID: 620-1710-11**

No Detections.

Client Sample ID: SC3-S2-FR-P306-102921 — **Lab Sample ID: 620-1710-12**

No Detections.

Client Sample ID: SC3-N3-FR-P400-102921 — **Lab Sample ID: 620-1710-13**

No Detections.

Client Sample ID: SC3-N3-FR-P401-102921 — **Lab Sample ID: 620-1710-14**

No Detections.

Client Sample ID: SC3-N3-FR-P403-102921 — **Lab Sample ID: 620-1710-15**

No Detections.

Client Sample ID: SC3-N3-FR-P406-102921 — **Lab Sample ID: 620-1710-16**

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1710-1

Client Sample ID: SC3-M1-FR-P500-102921 — Lab Sample ID: 620-1710-17

No Detections.

Client Sample ID: SC3-M1-FR-P501-102921 — Lab Sample ID: 620-1710-18

No Detections.

Client Sample ID: SC3-M1-FR-P503-102921 — Lab Sample ID: 620-1710-19

No Detections.

Client Sample ID: SC3-M1-FR-P506-102921 — Lab Sample ID: 620-1710-20

No Detections.

Client Sample ID: SC3-N1-FR-CTLP-102921 — Lab Sample ID: 620-1710-21

No Detections.

Client Sample ID: SC3-N4-FR-CTLP-102921 — Lab Sample ID: 620-1710-22

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1710-1

Client Sample ID: SC3-S2-FR-P100-102921

Lab Sample ID: 620-1710-1
Date Collected: 10/29/21 09:55
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.8

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	F2	15.4		mg/Kg	☼	11/02/21 15:03	11/09/21 11:03	2
Chromium	ND	F1 F2 *+ ^3+	5.14		mg/Kg	☼	11/02/21 15:03	11/04/21 19:43	1
Copper	ND	F2	10.3		mg/Kg	☼	11/02/21 15:03	11/09/21 11:03	2

Client Sample ID: SC3-S2-FR-P101-102921

Lab Sample ID: 620-1710-2
Date Collected: 10/29/21 09:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		21.3		mg/Kg	☼	11/02/21 15:03	11/09/21 11:26	2
Chromium	ND	*+ ^3+	7.11		mg/Kg	☼	11/02/21 15:03	11/04/21 20:11	1
Copper	ND	^6+ *+ ^1+ ^+ ^3+	7.11		mg/Kg	☼	11/02/21 15:03	11/04/21 20:11	1

Client Sample ID: SC3-S2-FR-P103-102921

Lab Sample ID: 620-1710-3
Date Collected: 10/29/21 09:45
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.6

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		13.9		mg/Kg	☼	11/02/21 15:03	11/09/21 11:42	2
Chromium	ND	*+ ^3+	4.65		mg/Kg	☼	11/02/21 15:03	11/04/21 20:16	1
Copper	ND		9.29		mg/Kg	☼	11/02/21 15:03	11/09/21 11:42	2

Client Sample ID: SC3-S2-FR-P106-102921

Lab Sample ID: 620-1710-4
Date Collected: 10/29/21 09:40
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		17.1		mg/Kg	☼	11/02/21 15:03	11/09/21 11:48	2
Chromium	ND	*+ ^3+	5.71		mg/Kg	☼	11/02/21 15:03	11/04/21 20:20	1
Copper	ND	^6+ *+ ^1+ ^+ ^3+	5.71		mg/Kg	☼	11/02/21 15:03	11/04/21 20:20	1

Client Sample ID: SC3-S2-FR-P200-102921

Lab Sample ID: 620-1710-5
Date Collected: 10/29/21 10:55
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 11.7

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		25.5		mg/Kg	☼	11/02/21 15:03	11/09/21 11:54	2
Chromium	ND		17.0		mg/Kg	☼	11/02/21 15:03	11/09/21 11:54	2
Copper	ND		17.0		mg/Kg	☼	11/02/21 15:03	11/09/21 11:54	2

Client Sample ID: SC3-S2-FR-P201-102921

Lab Sample ID: 620-1710-6
Date Collected: 10/29/21 10:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		21.0		mg/Kg	☼	11/02/21 15:03	11/09/21 11:59	2
Chromium	ND	*+ ^3+	6.99		mg/Kg	☼	11/02/21 15:03	11/04/21 20:30	1
Copper	ND	^6+ *+ ^1+ ^+ ^3+	6.99		mg/Kg	☼	11/02/21 15:03	11/04/21 20:30	1

Client Sample ID: SC3-S2-FR-P203-102921

Lab Sample ID: 620-1710-7
Date Collected: 10/29/21 10:45
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		16.4		mg/Kg	☼	11/02/21 15:03	11/09/21 12:05	2
Chromium	ND	*+ ^3+	5.46		mg/Kg	☼	11/02/21 15:03	11/04/21 20:34	1
Copper	ND	^6+ *+ ^1+ ^+ ^3+	5.46		mg/Kg	☼	11/02/21 15:03	11/04/21 20:34	1

Client Sample ID: SC3-S2-FR-P206-102921

Lab Sample ID: 620-1710-8
Date Collected: 10/29/21 10:40
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.6

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		24.5		mg/Kg	☼	11/02/21 15:03	11/09/21 12:11	2
Chromium	ND	*+ ^3+	8.17		mg/Kg	☼	11/02/21 15:03	11/04/21 20:39	1
Copper	ND	^6+ *+ ^1+ ^+ ^3+	8.17		mg/Kg	☼	11/02/21 15:03	11/04/21 20:39	1

Client Sample ID: SC3-S2-FR-P300-102921

Lab Sample ID: 620-1710-9
Date Collected: 10/29/21 11:55
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.0

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.9		mg/Kg	☼	11/02/21 15:03	11/09/21 12:16	2
Chromium	ND	*+ ^3+	6.30		mg/Kg	☼	11/02/21 15:03	11/04/21 20:44	1
Copper	ND		12.6		mg/Kg	☼	11/02/21 15:03	11/09/21 12:16	2

Client Sample ID: SC3-S2-FR-P301-102921

Lab Sample ID: 620-1710-10
Date Collected: 10/29/21 11:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 11.6

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	F2	20.5		mg/Kg	☼	11/02/21 15:03	11/09/21 12:22	2
Chromium	ND	F2 *+ ^+ ^3+	6.82		mg/Kg	☼	11/02/21 15:03	11/04/21 20:58	1
Copper	ND	F1 F2 ^6+ * + ^1+ ^+ ^3+	6.82		mg/Kg	☼	11/02/21 15:03	11/04/21 20:58	1

Client Sample ID: SC3-S2-FR-P303-102921

Lab Sample ID: 620-1710-11
Date Collected: 10/29/21 11:45
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		20.9		mg/Kg	☼	11/02/21 15:03	11/09/21 12:50	2
Chromium	ND	*+ ^+ ^3+	6.97		mg/Kg	☼	11/02/21 15:03	11/04/21 21:12	1
Copper	ND	^6+ *+ ^1+ ^+ ^3+	6.97		mg/Kg	☼	11/02/21 15:03	11/04/21 21:12	1

Client Sample ID: SC3-S2-FR-P306-102921

Lab Sample ID: 620-1710-12
Date Collected: 10/29/21 11:40
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.6		mg/Kg	☼	11/02/21 15:03	11/09/21 12:56	2
Chromium	ND	*+ ^+ ^3+	3.55		mg/Kg	☼	11/02/21 15:03	11/04/21 21:16	1
Copper	ND		7.09		mg/Kg	☼	11/02/21 15:03	11/09/21 12:56	2

Client Sample ID: SC3-N3-FR-P400-102921

Lab Sample ID: 620-1710-13
Date Collected: 10/29/21 14:05
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 11.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		23.9		mg/Kg	☼	11/02/21 15:03	11/09/21 13:01	2
Chromium	ND		15.9		mg/Kg	☼	11/02/21 15:03	11/09/21 13:01	2
Copper	ND		15.9		mg/Kg	☼	11/02/21 15:03	11/09/21 13:01	2

Client Sample ID: SC3-N3-FR-P401-102921

Lab Sample ID: 620-1710-14
Date Collected: 10/29/21 14:00
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.7

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		12.3		mg/Kg	☼	11/02/21 15:03	11/09/21 13:07	2
Chromium	ND	*+ ^+ ^3+	4.10		mg/Kg	☼	11/02/21 15:03	11/04/21 21:26	1
Copper	ND		8.19		mg/Kg	☼	11/02/21 15:03	11/09/21 13:07	2

Client Sample ID: SC3-N3-FR-P403-102921

Lab Sample ID: 620-1710-15
Date Collected: 10/29/21 13:55
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		13.3		mg/Kg	☼	11/02/21 15:03	11/09/21 13:13	2
Chromium	ND	*+ ^+ ^3+	4.44		mg/Kg	☼	11/02/21 15:03	11/04/21 21:30	1
Copper	ND		8.88		mg/Kg	☼	11/02/21 15:03	11/09/21 13:13	2

Client Sample ID: SC3-N3-FR-P406-102921

Lab Sample ID: 620-1710-16
Date Collected: 10/29/21 13:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.4

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		14.1		mg/Kg	☼	11/02/21 15:03	11/09/21 13:18	2

Client Sample ID: SC3-N3-FR-P406-102921

Lab Sample ID: 620-1710-16
Date Collected: 10/29/21 13:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.4

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	*+ ^+ ^3+	4.70		mg/Kg	☼	11/02/21 15:03	11/04/21 21:35	1
Copper	ND		9.40		mg/Kg	☼	11/02/21 15:03	11/09/21 13:18	2

Client Sample ID: SC3-M1-FR-P500-102921

Lab Sample ID: 620-1710-17
Date Collected: 10/29/21 15:20
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.8

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	F1 F2	12.6		mg/Kg	☼	11/02/21 15:09	11/08/21 12:41	2
Chromium	ND	*+ ^+	4.19		mg/Kg	☼	11/02/21 15:09	11/04/21 22:17	1
Copper	ND	F1 F2	8.37		mg/Kg	☼	11/02/21 15:09	11/08/21 12:41	2

Client Sample ID: SC3-M1-FR-P501-102921

Lab Sample ID: 620-1710-18
Date Collected: 10/29/21 15:15
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 14.7

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		19.7		mg/Kg	☼	11/02/21 15:09	11/08/21 13:04	2
Chromium	ND	*+	6.58		mg/Kg	☼	11/02/21 15:09	11/04/21 22:45	1
Copper	ND	^6+ *+ ^1+ ^+	6.58		mg/Kg	☼	11/02/21 15:09	11/04/21 22:45	1

Client Sample ID: SC3-M1-FR-P503-102921

Lab Sample ID: 620-1710-19
Date Collected: 10/29/21 15:10
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.8

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		20.8		mg/Kg	☼	11/02/21 15:09	11/08/21 13:30	2
Chromium	ND	*+	6.93		mg/Kg	☼	11/02/21 15:09	11/04/21 22:49	1
Copper	ND	^6+ *+ ^1+ ^+	6.93		mg/Kg	☼	11/02/21 15:09	11/04/21 22:49	1

Client Sample ID: SC3-M1-FR-P506-102921

Lab Sample ID: 620-1710-20
Date Collected: 10/29/21 15:05
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.4

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		17.9		mg/Kg	☼	11/02/21 15:09	11/08/21 13:40	2
Chromium	ND	*+	5.98		mg/Kg	☼	11/02/21 15:09	11/04/21 22:54	1
Copper	ND	^6+ *+ ^1+ ^+	5.98		mg/Kg	☼	11/02/21 15:09	11/04/21 22:54	1

Client Sample ID: SC3-N1-FR-CTLP-102921

Lab Sample ID: 620-1710-21
Date Collected: 10/29/21 14:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		16.9		mg/Kg	☼	11/02/21 15:09	11/08/21 13:46	2

Client Sample ID: SC3-N1-FR-CTLP-102921
Lab Sample ID: 620-1710-21

Date Collected: 10/29/21 14:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.2

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	*+	5.63		mg/Kg	☼	11/02/21 15:09	11/04/21 22:59	1
Copper	ND		11.3		mg/Kg	☼	11/02/21 15:09	11/08/21 13:46	2

Client Sample ID: SC3-N4-FR-CTLP-102921
Lab Sample ID: 620-1710-22

Date Collected: 10/29/21 13:15
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.8

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15.7		mg/Kg	☼	11/02/21 15:09	11/08/21 13:52	2
Chromium	ND	*+	5.23		mg/Kg	☼	11/02/21 15:09	11/04/21 23:03	1
Copper	ND	^6+ *+ ^1+ ^+	5.23		mg/Kg	☼	11/02/21 15:09	11/04/21 23:03	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 620-5239/1-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	^3+	0.933		mg/Kg		11/02/21 15:03	11/04/21 19:21	1
Copper	ND	^6+ ^1+ ^+ ^3+	0.933		mg/Kg		11/02/21 15:03	11/04/21 19:21	1

Lab Sample ID: MB 620-5239/1-A
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.40		mg/Kg		11/02/21 15:03	11/09/21 10:35	1

Lab Sample ID: LCDSRM 620-5239/3-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5239

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium			70.7	65.79	^3+	mg/Kg		93.1	68.6 - 102.3	5	20
Copper			134	145.3	^6+ *+ ^1+ ^+ ^3+	mg/Kg		108.5	75.4 - 106.7	0	20

Lab Sample ID: LCDSRM 620-5239/3-A
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5239

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			157	126.7		mg/Kg		80.7	73.9 - 105.1	1	20

Lab Sample ID: LCSSRM 620-5239/2-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5239

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium			70.7	62.53	^3+	mg/Kg		88.4	68.6 - 102.3		
Copper			134	145.9	^6+ *+ ^1+ ^+ ^3+	mg/Kg		108.9	75.4 - 106.7		

Lab Sample ID: LCSSRM 620-5239/2-A
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5239

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			157	128.5		mg/Kg		81.8	73.9 - 105.1		

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 620-1710-1 MS
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-S2-FR-P100-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND	F1 F2 *+ ^3+	634	786.1	^3+	mg/Kg	☼	124	75 - 125

Lab Sample ID: 620-1710-1 MS
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: SC3-S2-FR-P100-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND	F2	634	651.6		mg/Kg	☼	103	75 - 125
Copper	ND	F2	634	698.8		mg/Kg	☼	110	75 - 125

Lab Sample ID: 620-1710-1 MSD
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-S2-FR-P100-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND	F1 F2 *+ ^3+	491	623.5	F1 F2 ^3+	mg/Kg	☼	127	75 - 125	23	20

Lab Sample ID: 620-1710-1 MSD
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: SC3-S2-FR-P100-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND	F2	491	509.7	F2	mg/Kg	☼	104	75 - 125	24	20
Copper	ND	F2	491	553.3	F2	mg/Kg	☼	112	75 - 125	23	20

Lab Sample ID: 620-1710-10 MS
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-S2-FR-P301-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND	F2 *+ ^+ ^3+	671	814.3	^+ ^3+	mg/Kg	☼	121	75 - 125
Copper	ND	F1 F2 ^6+ *+ ^1+ ^+ ^3+	671	883.8	^6+ F1 ^1+ ^+ ^3+	mg/Kg	☼	131	75 - 125

Lab Sample ID: 620-1710-10 MS
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: SC3-S2-FR-P301-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND	F2	671	655.2		mg/Kg	☼	98	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 620-1710-10 MSD
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-S2-FR-P301-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND	F2 *+ ^+ ^3+	519	628.4	F2 ^+ ^3+	mg/Kg	☼	121	75 - 125	26	20
Copper	ND	F1 F2 ^6+ *+ ^1+ ^+ ^3+	519	682.5	^6+ F1 F2 ^1+ ^+ ^3+	mg/Kg	☼	131	75 - 125	26	20

Lab Sample ID: 620-1710-10 MSD
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: SC3-S2-FR-P301-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND	F2	519	531.9	F2	mg/Kg	☼	103	75 - 125	21	20

Lab Sample ID: 620-1710-1 DU
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-S2-FR-P100-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	ND	F1 F2 *+ ^3+	ND	*+ ^3+	mg/Kg	☼	NC	20

Lab Sample ID: 620-1710-1 DU
Matrix: Solid
Analysis Batch: 5463

Client Sample ID: SC3-S2-FR-P100-102921
Prep Type: Total/NA
Prep Batch: 5239

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	ND	F2	ND		mg/Kg	☼	NC	20
Copper	ND	F2	ND		mg/Kg	☼	NC	20

Lab Sample ID: MB 620-5242/1-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5242

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	^+	0.913	mg/Kg		11/02/21 15:09	11/04/21 21:54	1
Copper	ND	^6+ ^1+ ^+	0.913	mg/Kg		11/02/21 15:09	11/04/21 21:54	1

Lab Sample ID: MB 620-5242/1-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5242

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.37	mg/Kg		11/02/21 15:09	11/08/21 12:08	1

Lab Sample ID: LCDSRM 620-5242/3-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	70.7	60.60	^+	mg/Kg		85.7	68.6 - 102.3	7	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 620-5242/3-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	134	138.2	^6+ ^1+ ^+	mg/Kg		103.1	75.4 - 106.7	2	20

Lab Sample ID: LCDSRM 620-5242/3-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	157	118.6		mg/Kg		75.6	73.9 - 105.1	1	20

Lab Sample ID: LCSSRM 620-5242/2-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	70.7	64.71	^+	mg/Kg		91.5	68.6 - 102.3
Copper	134	140.7	^6+ ^1+ ^+	mg/Kg		105.0	75.4 - 106.7

Lab Sample ID: LCSSRM 620-5242/2-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	157	119.8		mg/Kg		76.3	73.9 - 105.1

Lab Sample ID: 620-1710-17 MS
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-M1-FR-P500-102921
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND	*+ ^+	626	750.2	^+	mg/Kg	☼	120	75 - 125

Lab Sample ID: 620-1710-17 MS
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC3-M1-FR-P500-102921
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND	F1 F2	626	623.8		mg/Kg	☼	100	75 - 125
Copper	ND	F1 F2	626	676.4		mg/Kg	☼	107	75 - 125

Lab Sample ID: 620-1710-17 MSD
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-M1-FR-P500-102921
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND	*+ ^+	561	690.9	^+	mg/Kg	☼	123	75 - 125	8	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 620-1710-17 MSD
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC3-M1-FR-P500-102921
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND	F1 F2	561	546.7		mg/Kg	☼	98	75 - 125	13	20
Copper	ND	F1 F2	561	594.7		mg/Kg	☼	105	75 - 125	13	20

Lab Sample ID: 620-1710-17 DU
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC3-M1-FR-P500-102921
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	ND	*+ ^+	ND	*+ ^+	mg/Kg	☼	NC	20

Lab Sample ID: 620-1710-17 DU
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC3-M1-FR-P500-102921
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	ND	F1 F2	ND		mg/Kg	☼	NC	20
Copper	ND	F1 F2	ND		mg/Kg	☼	NC	20

Metals

Prep Batch: 5239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-1	SC3-S2-FR-P100-102921	Total/NA	Solid	3050B	
620-1710-2	SC3-S2-FR-P101-102921	Total/NA	Solid	3050B	
620-1710-3	SC3-S2-FR-P103-102921	Total/NA	Solid	3050B	
620-1710-4	SC3-S2-FR-P106-102921	Total/NA	Solid	3050B	
620-1710-5	SC3-S2-FR-P200-102921	Total/NA	Solid	3050B	
620-1710-6	SC3-S2-FR-P201-102921	Total/NA	Solid	3050B	
620-1710-7	SC3-S2-FR-P203-102921	Total/NA	Solid	3050B	
620-1710-8	SC3-S2-FR-P206-102921	Total/NA	Solid	3050B	
620-1710-9	SC3-S2-FR-P300-102921	Total/NA	Solid	3050B	
620-1710-10	SC3-S2-FR-P301-102921	Total/NA	Solid	3050B	
620-1710-11	SC3-S2-FR-P303-102921	Total/NA	Solid	3050B	
620-1710-12	SC3-S2-FR-P306-102921	Total/NA	Solid	3050B	
620-1710-13	SC3-N3-FR-P400-102921	Total/NA	Solid	3050B	
620-1710-14	SC3-N3-FR-P401-102921	Total/NA	Solid	3050B	
620-1710-15	SC3-N3-FR-P403-102921	Total/NA	Solid	3050B	
620-1710-16	SC3-N3-FR-P406-102921	Total/NA	Solid	3050B	
MB 620-5239/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 620-5239/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 620-5239/2-A	Lab Control Sample	Total/NA	Solid	3050B	
620-1710-1 MS	SC3-S2-FR-P100-102921	Total/NA	Solid	3050B	
620-1710-1 MSD	SC3-S2-FR-P100-102921	Total/NA	Solid	3050B	
620-1710-10 MS	SC3-S2-FR-P301-102921	Total/NA	Solid	3050B	
620-1710-10 MSD	SC3-S2-FR-P301-102921	Total/NA	Solid	3050B	
620-1710-1 DU	SC3-S2-FR-P100-102921	Total/NA	Solid	3050B	

Prep Batch: 5242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-17	SC3-M1-FR-P500-102921	Total/NA	Solid	3050B	
620-1710-18	SC3-M1-FR-P501-102921	Total/NA	Solid	3050B	
620-1710-19	SC3-M1-FR-P503-102921	Total/NA	Solid	3050B	
620-1710-20	SC3-M1-FR-P506-102921	Total/NA	Solid	3050B	
620-1710-21	SC3-N1-FR-CTLP-102921	Total/NA	Solid	3050B	
620-1710-22	SC3-N4-FR-CTLP-102921	Total/NA	Solid	3050B	
MB 620-5242/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 620-5242/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 620-5242/2-A	Lab Control Sample	Total/NA	Solid	3050B	
620-1710-17 MS	SC3-M1-FR-P500-102921	Total/NA	Solid	3050B	
620-1710-17 MSD	SC3-M1-FR-P500-102921	Total/NA	Solid	3050B	
620-1710-17 DU	SC3-M1-FR-P500-102921	Total/NA	Solid	3050B	

Analysis Batch: 5331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-1	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239
620-1710-2	SC3-S2-FR-P101-102921	Total/NA	Solid	6010D	5239
620-1710-3	SC3-S2-FR-P103-102921	Total/NA	Solid	6010D	5239
620-1710-4	SC3-S2-FR-P106-102921	Total/NA	Solid	6010D	5239
620-1710-6	SC3-S2-FR-P201-102921	Total/NA	Solid	6010D	5239
620-1710-7	SC3-S2-FR-P203-102921	Total/NA	Solid	6010D	5239
620-1710-8	SC3-S2-FR-P206-102921	Total/NA	Solid	6010D	5239
620-1710-9	SC3-S2-FR-P300-102921	Total/NA	Solid	6010D	5239
620-1710-10	SC3-S2-FR-P301-102921	Total/NA	Solid	6010D	5239

Metals (Continued)

Analysis Batch: 5331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-11	SC3-S2-FR-P303-102921	Total/NA	Solid	6010D	5239
620-1710-12	SC3-S2-FR-P306-102921	Total/NA	Solid	6010D	5239
620-1710-14	SC3-N3-FR-P401-102921	Total/NA	Solid	6010D	5239
620-1710-15	SC3-N3-FR-P403-102921	Total/NA	Solid	6010D	5239
620-1710-16	SC3-N3-FR-P406-102921	Total/NA	Solid	6010D	5239
620-1710-17	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242
620-1710-18	SC3-M1-FR-P501-102921	Total/NA	Solid	6010D	5242
620-1710-19	SC3-M1-FR-P503-102921	Total/NA	Solid	6010D	5242
620-1710-20	SC3-M1-FR-P506-102921	Total/NA	Solid	6010D	5242
620-1710-21	SC3-N1-FR-CTLP-102921	Total/NA	Solid	6010D	5242
620-1710-22	SC3-N4-FR-CTLP-102921	Total/NA	Solid	6010D	5242
MB 620-5239/1-A	Method Blank	Total/NA	Solid	6010D	5239
MB 620-5242/1-A	Method Blank	Total/NA	Solid	6010D	5242
LCDSRM 620-5239/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5239
LCDSRM 620-5242/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5242
LCSSRM 620-5239/2-A	Lab Control Sample	Total/NA	Solid	6010D	5239
LCSSRM 620-5242/2-A	Lab Control Sample	Total/NA	Solid	6010D	5242
620-1710-1 MS	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239
620-1710-1 MSD	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239
620-1710-10 MS	SC3-S2-FR-P301-102921	Total/NA	Solid	6010D	5239
620-1710-10 MSD	SC3-S2-FR-P301-102921	Total/NA	Solid	6010D	5239
620-1710-17 MS	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242
620-1710-17 MSD	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242
620-1710-1 DU	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239
620-1710-17 DU	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242

Analysis Batch: 5395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-17	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242
620-1710-18	SC3-M1-FR-P501-102921	Total/NA	Solid	6010D	5242
620-1710-19	SC3-M1-FR-P503-102921	Total/NA	Solid	6010D	5242
620-1710-20	SC3-M1-FR-P506-102921	Total/NA	Solid	6010D	5242
620-1710-21	SC3-N1-FR-CTLP-102921	Total/NA	Solid	6010D	5242
620-1710-22	SC3-N4-FR-CTLP-102921	Total/NA	Solid	6010D	5242
MB 620-5242/1-A	Method Blank	Total/NA	Solid	6010D	5242
LCDSRM 620-5242/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5242
LCSSRM 620-5242/2-A	Lab Control Sample	Total/NA	Solid	6010D	5242
620-1710-17 MS	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242
620-1710-17 MSD	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242
620-1710-17 DU	SC3-M1-FR-P500-102921	Total/NA	Solid	6010D	5242

Analysis Batch: 5463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-1	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239
620-1710-2	SC3-S2-FR-P101-102921	Total/NA	Solid	6010D	5239
620-1710-3	SC3-S2-FR-P103-102921	Total/NA	Solid	6010D	5239
620-1710-4	SC3-S2-FR-P106-102921	Total/NA	Solid	6010D	5239
620-1710-5	SC3-S2-FR-P200-102921	Total/NA	Solid	6010D	5239
620-1710-6	SC3-S2-FR-P201-102921	Total/NA	Solid	6010D	5239
620-1710-7	SC3-S2-FR-P203-102921	Total/NA	Solid	6010D	5239
620-1710-8	SC3-S2-FR-P206-102921	Total/NA	Solid	6010D	5239

Metals (Continued)

Analysis Batch: 5463 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-9	SC3-S2-FR-P300-102921	Total/NA	Solid	6010D	5239
620-1710-10	SC3-S2-FR-P301-102921	Total/NA	Solid	6010D	5239
620-1710-11	SC3-S2-FR-P303-102921	Total/NA	Solid	6010D	5239
620-1710-12	SC3-S2-FR-P306-102921	Total/NA	Solid	6010D	5239
620-1710-13	SC3-N3-FR-P400-102921	Total/NA	Solid	6010D	5239
620-1710-14	SC3-N3-FR-P401-102921	Total/NA	Solid	6010D	5239
620-1710-15	SC3-N3-FR-P403-102921	Total/NA	Solid	6010D	5239
620-1710-16	SC3-N3-FR-P406-102921	Total/NA	Solid	6010D	5239
MB 620-5239/1-A	Method Blank	Total/NA	Solid	6010D	5239
LCDSRM 620-5239/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5239
LCSSRM 620-5239/2-A	Lab Control Sample	Total/NA	Solid	6010D	5239
620-1710-1 MS	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239
620-1710-1 MSD	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239
620-1710-10 MS	SC3-S2-FR-P301-102921	Total/NA	Solid	6010D	5239
620-1710-10 MSD	SC3-S2-FR-P301-102921	Total/NA	Solid	6010D	5239
620-1710-1 DU	SC3-S2-FR-P100-102921	Total/NA	Solid	6010D	5239

General Chemistry

Analysis Batch: 5200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1710-1	SC3-S2-FR-P100-102921	Total/NA	Solid	Moisture	
620-1710-2	SC3-S2-FR-P101-102921	Total/NA	Solid	Moisture	
620-1710-3	SC3-S2-FR-P103-102921	Total/NA	Solid	Moisture	
620-1710-4	SC3-S2-FR-P106-102921	Total/NA	Solid	Moisture	
620-1710-5	SC3-S2-FR-P200-102921	Total/NA	Solid	Moisture	
620-1710-6	SC3-S2-FR-P201-102921	Total/NA	Solid	Moisture	
620-1710-7	SC3-S2-FR-P203-102921	Total/NA	Solid	Moisture	
620-1710-8	SC3-S2-FR-P206-102921	Total/NA	Solid	Moisture	
620-1710-9	SC3-S2-FR-P300-102921	Total/NA	Solid	Moisture	
620-1710-10	SC3-S2-FR-P301-102921	Total/NA	Solid	Moisture	
620-1710-11	SC3-S2-FR-P303-102921	Total/NA	Solid	Moisture	
620-1710-12	SC3-S2-FR-P306-102921	Total/NA	Solid	Moisture	
620-1710-13	SC3-N3-FR-P400-102921	Total/NA	Solid	Moisture	
620-1710-14	SC3-N3-FR-P401-102921	Total/NA	Solid	Moisture	
620-1710-15	SC3-N3-FR-P403-102921	Total/NA	Solid	Moisture	
620-1710-16	SC3-N3-FR-P406-102921	Total/NA	Solid	Moisture	
620-1710-17	SC3-M1-FR-P500-102921	Total/NA	Solid	Moisture	
620-1710-18	SC3-M1-FR-P501-102921	Total/NA	Solid	Moisture	
620-1710-19	SC3-M1-FR-P503-102921	Total/NA	Solid	Moisture	
620-1710-20	SC3-M1-FR-P506-102921	Total/NA	Solid	Moisture	
620-1710-21	SC3-N1-FR-CTLP-102921	Total/NA	Solid	Moisture	
620-1710-22	SC3-N4-FR-CTLP-102921	Total/NA	Solid	Moisture	
620-1710-1 DU	SC3-S2-FR-P100-102921	Total/NA	Solid	Moisture	
620-1710-22 DU	SC3-N4-FR-CTLP-102921	Total/NA	Solid	Moisture	

Client Sample ID: SC3-S2-FR-P100-102921
Date Collected: 10/29/21 09:55
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P100-102921
Date Collected: 10/29/21 09:55
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-1
Matrix: Solid
Percent Solids: 12.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 11:03	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 19:43	EDT	ENE

Client Sample ID: SC3-S2-FR-P101-102921
Date Collected: 10/29/21 09:50
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P101-102921
Date Collected: 10/29/21 09:50
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-2
Matrix: Solid
Percent Solids: 13.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 11:26	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:11	EDT	ENE

Client Sample ID: SC3-S2-FR-P103-102921
Date Collected: 10/29/21 09:45
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P103-102921
Date Collected: 10/29/21 09:45
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-3
Matrix: Solid
Percent Solids: 12.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 11:42	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:16	EDT	ENE

Client Sample ID: SC3-S2-FR-P106-102921 — **Lab Sample ID: 620-1710-4**
Date Collected: 10/29/21 09:40 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P106-102921 — **Lab Sample ID: 620-1710-4**
Date Collected: 10/29/21 09:40 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 12.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 11:48	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:20	EDT	ENE

Client Sample ID: SC3-S2-FR-P200-102921 — **Lab Sample ID: 620-1710-5**
Date Collected: 10/29/21 10:55 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P200-102921 — **Lab Sample ID: 620-1710-5**
Date Collected: 10/29/21 10:55 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 11.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 11:54	CEV	ENE

Client Sample ID: SC3-S2-FR-P201-102921 — **Lab Sample ID: 620-1710-6**
Date Collected: 10/29/21 10:50 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P201-102921 — **Lab Sample ID: 620-1710-6**
Date Collected: 10/29/21 10:50 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 12.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 11:59	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:30	EDT	ENE

Client Sample ID: SC3-S2-FR-P203-102921
Lab Sample ID: 620-1710-7
Date Collected: 10/29/21 10:45
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P203-102921
Lab Sample ID: 620-1710-7
Date Collected: 10/29/21 10:45
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 12:05	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:34	EDT	ENE

Client Sample ID: SC3-S2-FR-P206-102921
Lab Sample ID: 620-1710-8
Date Collected: 10/29/21 10:40
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P206-102921
Lab Sample ID: 620-1710-8
Date Collected: 10/29/21 10:40
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 12:11	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:39	EDT	ENE

Client Sample ID: SC3-S2-FR-P300-102921
Lab Sample ID: 620-1710-9
Date Collected: 10/29/21 11:55
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P300-102921
Lab Sample ID: 620-1710-9
Date Collected: 10/29/21 11:55
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 12:16	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:44	EDT	ENE

Client Sample ID: SC3-S2-FR-P301-102921 — **Lab Sample ID: 620-1710-10**
Date Collected: 10/29/21 11:50 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P301-102921 — **Lab Sample ID: 620-1710-10**
Date Collected: 10/29/21 11:50 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 11.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 12:22	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 20:58	EDT	ENE

Client Sample ID: SC3-S2-FR-P303-102921 — **Lab Sample ID: 620-1710-11**
Date Collected: 10/29/21 11:45 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P303-102921 — **Lab Sample ID: 620-1710-11**
Date Collected: 10/29/21 11:45 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 12.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 12:50	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 21:12	EDT	ENE

Client Sample ID: SC3-S2-FR-P306-102921 — **Lab Sample ID: 620-1710-12**
Date Collected: 10/29/21 11:40 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-S2-FR-P306-102921 — **Lab Sample ID: 620-1710-12**
Date Collected: 10/29/21 11:40 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 12.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 12:56	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 21:16	EDT	ENE

Client Sample ID: SC3-N3-FR-P400-102921 — **Lab Sample ID: 620-1710-13**
Date Collected: 10/29/21 14:05 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-N3-FR-P400-102921 — **Lab Sample ID: 620-1710-13**
Date Collected: 10/29/21 14:05 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 11.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 13:01	CEV	ENE

Client Sample ID: SC3-N3-FR-P401-102921 — **Lab Sample ID: 620-1710-14**
Date Collected: 10/29/21 14:00 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-N3-FR-P401-102921 — **Lab Sample ID: 620-1710-14**
Date Collected: 10/29/21 14:00 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 13.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 13:07	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 21:26	EDT	ENE

Client Sample ID: SC3-N3-FR-P403-102921 — **Lab Sample ID: 620-1710-15**
Date Collected: 10/29/21 13:55 — **Matrix: Solid**
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-N3-FR-P403-102921 — **Lab Sample ID: 620-1710-15**
Date Collected: 10/29/21 13:55 — **Matrix: Solid**
Date Received: 10/29/21 18:05 — **Percent Solids: 12.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 13:13	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 21:30	EDT	ENE

Client Sample ID: SC3-N3-FR-P406-102921
Lab Sample ID: 620-1710-16
Date Collected: 10/29/21 13:50
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-N3-FR-P406-102921
Lab Sample ID: 620-1710-16
Date Collected: 10/29/21 13:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		2	5463	11/09/21 13:18	CEV	ENE
Total/NA	Prep	3050B			5239	11/02/21 15:03	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 21:35	EDT	ENE

Client Sample ID: SC3-M1-FR-P500-102921
Lab Sample ID: 620-1710-17
Date Collected: 10/29/21 15:20
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-M1-FR-P500-102921
Lab Sample ID: 620-1710-17
Date Collected: 10/29/21 15:20
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 12.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 12:41	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 22:17	EDT	ENE

Client Sample ID: SC3-M1-FR-P501-102921
Lab Sample ID: 620-1710-18
Date Collected: 10/29/21 15:15
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-M1-FR-P501-102921
Lab Sample ID: 620-1710-18
Date Collected: 10/29/21 15:15
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 14.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 13:04	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 22:45	EDT	ENE

Client Sample ID: SC3-M1-FR-P503-102921
Lab Sample ID: 620-1710-19
Date Collected: 10/29/21 15:10
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-M1-FR-P503-102921
Lab Sample ID: 620-1710-19
Date Collected: 10/29/21 15:10
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 13:30	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 22:49	EDT	ENE

Client Sample ID: SC3-M1-FR-P506-102921
Lab Sample ID: 620-1710-20
Date Collected: 10/29/21 15:05
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-M1-FR-P506-102921
Lab Sample ID: 620-1710-20
Date Collected: 10/29/21 15:05
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 13:40	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 22:54	EDT	ENE

Client Sample ID: SC3-N1-FR-CTLP-102921
Lab Sample ID: 620-1710-21
Date Collected: 10/29/21 14:50
Matrix: Solid
Date Received: 10/29/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-N1-FR-CTLP-102921
Lab Sample ID: 620-1710-21
Date Collected: 10/29/21 14:50
Matrix: Solid
Date Received: 10/29/21 18:05
Percent Solids: 13.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 13:46	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 22:59	EDT	ENE

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1710-1

Client Sample ID: SC3-N4-FR-CTLP-102921
Date Collected: 10/29/21 13:15
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5200	11/01/21 14:38	KFS	ENE

Client Sample ID: SC3-N4-FR-CTLP-102921
Date Collected: 10/29/21 13:15
Date Received: 10/29/21 18:05

Lab Sample ID: 620-1710-22
Matrix: Solid
Percent Solids: 12.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 13:52	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:03	EDT	ENE

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: Mabbett & Associates, Inc.
Job ID: 620-1710-1
Project/Site: SC-3 - Carver, MA

Laboratory: Eurofins Environment Testing New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-RI907	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Copper
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1710-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	ENE
Moisture	Percent Moisture	EPA	ENE
3050B	Preparation, Metals	SW846	ENE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1710-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-1710-1	SC3-S2-FR-P100-102921	Solid	10/29/21 09:55	10/29/21 18:05
620-1710-2	SC3-S2-FR-P101-102921	Solid	10/29/21 09:50	10/29/21 18:05
620-1710-3	SC3-S2-FR-P103-102921	Solid	10/29/21 09:45	10/29/21 18:05
620-1710-4	SC3-S2-FR-P106-102921	Solid	10/29/21 09:40	10/29/21 18:05
620-1710-5	SC3-S2-FR-P200-102921	Solid	10/29/21 10:55	10/29/21 18:05
620-1710-6	SC3-S2-FR-P201-102921	Solid	10/29/21 10:50	10/29/21 18:05
620-1710-7	SC3-S2-FR-P203-102921	Solid	10/29/21 10:45	10/29/21 18:05
620-1710-8	SC3-S2-FR-P206-102921	Solid	10/29/21 10:40	10/29/21 18:05
620-1710-9	SC3-S2-FR-P300-102921	Solid	10/29/21 11:55	10/29/21 18:05
620-1710-10	SC3-S2-FR-P301-102921	Solid	10/29/21 11:50	10/29/21 18:05
620-1710-11	SC3-S2-FR-P303-102921	Solid	10/29/21 11:45	10/29/21 18:05
620-1710-12	SC3-S2-FR-P306-102921	Solid	10/29/21 11:40	10/29/21 18:05
620-1710-13	SC3-N3-FR-P400-102921	Solid	10/29/21 14:05	10/29/21 18:05
620-1710-14	SC3-N3-FR-P401-102921	Solid	10/29/21 14:00	10/29/21 18:05
620-1710-15	SC3-N3-FR-P403-102921	Solid	10/29/21 13:55	10/29/21 18:05
620-1710-16	SC3-N3-FR-P406-102921	Solid	10/29/21 13:50	10/29/21 18:05
620-1710-17	SC3-M1-FR-P500-102921	Solid	10/29/21 15:20	10/29/21 18:05
620-1710-18	SC3-M1-FR-P501-102921	Solid	10/29/21 15:15	10/29/21 18:05
620-1710-19	SC3-M1-FR-P503-102921	Solid	10/29/21 15:10	10/29/21 18:05
620-1710-20	SC3-M1-FR-P506-102921	Solid	10/29/21 15:05	10/29/21 18:05
620-1710-21	SC3-N1-FR-CTLP-102921	Solid	10/29/21 14:50	10/29/21 18:05
620-1710-22	SC3-N4-FR-CTLP-102921	Solid	10/29/21 13:15	10/29/21 18:05

1710 EM

nment Testing
New England

CHAIN OF CUSTODY RECORD

Page 1 of 3

Special Handling:

☐ Standard TAT - 7 to 10 business days
☒ Rush TAT - Date Needed 11-5-2021

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed

Report To: Mabbett
105 Central St
Stoneham MA

Telephone # 781-275-6050
Project Mgr S. Vetere

Invoice To: same as ←

P.O No. 5948 Quote #

Project No. R2021054.000.004
Site Name SC-3
Location Carver State: MA
Sampler(s):

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= cranberry X2= X3=

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic bags	List Preservative Code below: 1	Analysis: total As, Cr, Cu	Check if chlorinated
	SC3-S2-FR-P100-102921	10-29	955		X1				1		X	☐
	SC3 S2-FR-P101-102921		950									☐
	SC3-S2-FR-P103 102924		945									☐
	SC3-S2-FR-P106-102921		940									☐
	SC3-S2-FR-P200-102921		1055									☐
	SC3-S2-FR-P201-102921		1050									☐
	SC3-S2-FR-P203-102924		1045									☐
	SC3 S2-FR-P206-102921		1040									☐
	SC3 S2-FR-P300-102921		1155									☐
	SC3 S2-FR-P301-102921	↓	1150		↓				↓		↓	☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other
State-specific reporting standards.

Relinquished by:	Received by:	Date:	Time:
away			
David Dec		10/29/21	1535
		10/29/21	18:05

Temp °C
Observed 4
Correction Factor +1
Corrected 5.4
IR ID # 6

☒ EDD format excel
☒ E-mail to vetere@mabbett.com
kdoom@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☒ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

eurofins | Environment Testing New England

CHAIN OF CUSTODY RECORD

Page 2 of 3

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed 11-5-2021

All TATs subject to laboratory approval
Min 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed

Report To. Mabbett
105 Central St
Stoneham Ma

Telephone # 781-275-6050
Project Mgr S.Vetere

Invoice To: same as ←

PO No. 5948 Quote #

Project No: B2021054.000.004
Site Name: SC-3
Location carver State: MA
Sampler(s)

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= cranberry X2= X3=

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic bags	Containers: List Preservative Code below: I	Analysis: total As, Cr, Cu	Check if chlorinated
	SC3-S2-FR-P303-102921	10/29	1145		X1				1		X	☐
	SC3 S2-FR-P306-102921		1140		X1				1		X	☐
	SC3-N3-FR-P400-102921		1405									☐
	SC3 N3 FR-P401-102921		1400									☐
	SC3-N3-FR-P403 102921		1355									☐
	SC3 N3-FR-P406-102921		1350									☐
	SC3-M1-FR-P500-102921		1520									☐
	SC3 M1-FR-P501-102921		1515									☐
	SC3-M1-FR-P503-102921		1510									☐
	SC3 M1-FR-P506-102921	↓	1505		↓				↓		↓	☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other
State-specific reporting standards.

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	10/29/21	15:35
[signature]	[signature]	10/29/21	19:05

Temp °C
Observed 4.4
Correction Factor +1
Corrected 5.4
IR ID # 6

☒ EDD format excel
☒ E-mail to vetere@mabbett.com
bloom@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☒ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

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CHAIN OF CUSTODY RECORD

Page 3 of 3

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed 11-5-2021

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Mabbett
105 Central St
Stoneham MA

Telephone #: 781-275-6050
Project Mgr: S. Vetere

Invoice To: same as ←

PO No. 5948 Quote #:

Project No: R2021054.000.004
Site Name. SC-3
Location carver State MA
Sampler(s)

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

List Preservative Code below:

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= cranberry X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic bags	total As,Cr,Cu	Analysis	Check if chlorinated
	SC3-NI-FR-CTLP-102921	10-29	1450		X1				1	X		☐
	SC3-NI-FR-CTLP 102921	10-29	1315		X1				1	X		☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other
State-specific reporting standards.

SC3-NI

Relinquished by:	Received by:	Date:	Time:
		10/29/21	15:35
		10/29/21	18:05

Temp °C
Observed 4.4
Correction Factor +1
Corrected 5.4
IR ID # 6

☒ EDD format excel
☒ E-mail to: vetere@mabbett.com
bloom@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☒ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

Rev Jan 2020

11/9/2021

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc. Job Number: 620-1710-1

Login Number: 1710 **List Source: Eurofins Environment Testing New England**
List Number: 1
Creator: Makhoul, Elie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Environment Testing New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-1711-1
Client Project/Site: SC-3 - Carver, MA

For:
Mabbett & Associates, Inc.
105 Central Street
Suite 4100
Stoneham, Massachusetts 02180

Attn: Mr. Stephen Vetere

Authorized for release by:
11/8/2021 8:37:52 PM
Erica Troy, Lab Director
(401)372-3479
erica.troy@eurofinset.com

Designee for

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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Definitions/Glossary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^3-	Reporting Limit Check Standard is outside acceptance limits, low biased.
^6+	Interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-1711-1

Laboratory: Eurofins Environment Testing New England

Narrative

Job Narrative
620-1711-1

Comments
No additional comments.

Receipt
The samples were received on 10/29/2021 6:06 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4º C.

Metals
Method 6010D: The initial calibration verification (ICV) and continuing calibration verification (CCV) associated with batch 620-5331 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. All samples with detects have been reanalyzed under passing QC. The associated samples are impacted: SC1-N6-FR-P100-102821 (620-1711-1), SC1-N6-FR-P101-102821 (620-1711-2), SC1-N6-FR-P103-102821 (620-1711-3), SC1-N6-FR-P106-102821 (620-1711-4), SC1-N6-FR-P200-102821 (620-1711-5), SC1-N6-FR-P201-102821 (620-1711-6), SC1-N6-FR-P203-102821 (620-1711-7), SC1-N6-FR-P206-102821 (620-1711-8), SC1-N6-FR-P300-102821 (620-1711-9), SC1-N6-FR-P301-102821 (620-1711-10) and (620-1710-A-17-A).

Methods 6010, 6010D: The laboratory control sample (LCS) associated with preparation batch 620-5242 and 620-5243 and analytical batch 620-5395 was outside acceptance criteria for sulfure. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Methods 6010, 6010D: The following samples were diluted due to the nature of the sample matrix: SC1-N6-FR-P100-102821 (620-1711-1), SC1-N6-FR-P101-102821 (620-1711-2), SC1-N6-FR-P103-102821 (620-1711-3), SC1-N6-FR-P106-102821 (620-1711-4), SC1-N6-FR-P200-102821 (620-1711-5), SC1-N6-FR-P201-102821 (620-1711-6), SC1-N6-FR-P203-102821 (620-1711-7), SC1-N6-FR-P206-102821 (620-1711-8), SC1-N6-FR-P300-102821 (620-1711-9), SC1-N6-FR-P301-102821 (620-1711-10), SC1-N6-FR-P303-102821 (620-1711-11), SC1-N6-FR-P306-102821 (620-1711-12), SC1-N4-FR-P400-102821 (620-1711-13), SC1-N4-FR-P401-102821 (620-1711-14), SC1-N4-FR-P403-102821 (620-1711-15), SC1-N4-FR-P406-102821 (620-1711-16), SC1-S1-FR-P500-102821 (620-1711-17), SC1-S1-FR-P501-102821 (620-1711-18), SC1-S1-FR-P503-102821 (620-1711-19), SC1-S1-FR-P506-102821 (620-1711-20), SC1-N1-FR-CTLU-102921 (620-1711-21), SC1-N2-FR-CTLU-102921 (620-1711-22) and (620-1710-A-17-A ^2). Elevated reporting limits (RLs) are provided.

Methods 6010, 6010D: The low level check standard recovery associated with batch 620-5395 is outside the acceptance criteria for the following analyte(s): sulfur. Repeat analysis of this SDG has shown that this is a result of matrix interference from the sample matrix.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Client Sample ID: SC1-N6-FR-P100-102821 — Lab Sample ID: 620-1711-1

No Detections.

Client Sample ID: SC1-N6-FR-P101-102821 — Lab Sample ID: 620-1711-2

No Detections.

Client Sample ID: SC1-N6-FR-P103-102821 — Lab Sample ID: 620-1711-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chromium	21.3		12.9		mg/Kg	2	☼	6010D	Total/NA
Copper	24.4		12.9		mg/Kg	2	☼	6010D	Total/NA

Client Sample ID: SC1-N6-FR-P106-102821 — Lab Sample ID: 620-1711-4

No Detections.

Client Sample ID: SC1-N6-FR-P200-102821 — Lab Sample ID: 620-1711-5

No Detections.

Client Sample ID: SC1-N6-FR-P201-102821 — Lab Sample ID: 620-1711-6

No Detections.

Client Sample ID: SC1-N6-FR-P203-102821 — Lab Sample ID: 620-1711-7

No Detections.

Client Sample ID: SC1-N6-FR-P206-102821 — Lab Sample ID: 620-1711-8

No Detections.

Client Sample ID: SC1-N6-FR-P300-102821 — Lab Sample ID: 620-1711-9

No Detections.

Client Sample ID: SC1-N6-FR-P301-102821 — Lab Sample ID: 620-1711-10

No Detections.

Client Sample ID: SC1-N6-FR-P303-102821 — Lab Sample ID: 620-1711-11

No Detections.

Client Sample ID: SC1-N6-FR-P306-102821 — Lab Sample ID: 620-1711-12

No Detections.

Client Sample ID: SC1-N4-FR-P400-102821 — Lab Sample ID: 620-1711-13

No Detections.

Client Sample ID: SC1-N4-FR-P401-102821 — Lab Sample ID: 620-1711-14

No Detections.

Client Sample ID: SC1-N4-FR-P403-102821 — Lab Sample ID: 620-1711-15

No Detections.

Client Sample ID: SC1-N4-FR-P406-102821 — Lab Sample ID: 620-1711-16

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Environment Testing New England

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Client Sample ID: SC1-S1-FR-P500-102821 — Lab Sample ID: 620-1711-17

No Detections.

Client Sample ID: SC1-S1-FR-P501-102821 — Lab Sample ID: 620-1711-18

No Detections.

Client Sample ID: SC1-S1-FR-P503-102821 — Lab Sample ID: 620-1711-19

No Detections.

Client Sample ID: SC1-S1-FR-P506-102821 — Lab Sample ID: 620-1711-20

No Detections.

Client Sample ID: SC1-N1-FR-CTLU-102921 — Lab Sample ID: 620-1711-21

No Detections.

Client Sample ID: SC1-N2-FR-CTLU-102921 — Lab Sample ID: 620-1711-22

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: SC1-N6-FR-P100-102821

Lab Sample ID: 620-1711-1
Date Collected: 10/28/21 09:45
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		26.1		mg/Kg	☼	11/02/21 15:09	11/08/21 13:58	2
Chromium	ND	*+	8.70		mg/Kg	☼	11/02/21 15:09	11/04/21 23:08	1
Copper	ND		17.4		mg/Kg	☼	11/02/21 15:09	11/08/21 13:58	2

Client Sample ID: SC1-N6-FR-P101-102821

Lab Sample ID: 620-1711-2
Date Collected: 10/28/21 10:05
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		19.0		mg/Kg	☼	11/02/21 15:09	11/08/21 14:14	2
Chromium	ND	*+	6.32		mg/Kg	☼	11/02/21 15:09	11/04/21 23:31	1
Copper	ND		12.6		mg/Kg	☼	11/02/21 15:09	11/08/21 14:14	2

Client Sample ID: SC1-N6-FR-P103-102821

Lab Sample ID: 620-1711-3
Date Collected: 10/28/21 10:15
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.9

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		19.3		mg/Kg	☼	11/02/21 15:09	11/08/21 14:23	2
Chromium	**21.3**		12.9		mg/Kg	☼	11/02/21 15:09	11/08/21 14:23	2
Copper	**24.4**		12.9		mg/Kg	☼	11/02/21 15:09	11/08/21 14:23	2

Client Sample ID: SC1-N6-FR-P106-102821

Lab Sample ID: 620-1711-4
Date Collected: 10/28/21 09:30
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.4		mg/Kg	☼	11/02/21 15:09	11/08/21 14:29	2
Chromium	ND	*+	6.12		mg/Kg	☼	11/02/21 15:09	11/04/21 23:40	1
Copper	ND		12.2		mg/Kg	☼	11/02/21 15:09	11/08/21 14:29	2

Client Sample ID: SC1-N6-FR-P200-102821

Lab Sample ID: 620-1711-5
Date Collected: 10/28/21 10:45
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		14.2		mg/Kg	☼	11/02/21 15:09	11/08/21 14:46	2
Chromium	ND	*+	4.73		mg/Kg	☼	11/02/21 15:09	11/04/21 23:45	1
Copper	ND		9.46		mg/Kg	☼	11/02/21 15:09	11/08/21 14:46	2

Client Sample ID: SC1-N6-FR-P201-102821

Lab Sample ID: 620-1711-6
Date Collected: 10/28/21 11:00
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.4

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		25.1		mg/Kg	☼	11/02/21 15:09	11/08/21 14:51	2
Chromium	ND	*+	8.36		mg/Kg	☼	11/02/21 15:09	11/04/21 23:50	1

Client Sample ID: SC1-N6-FR-P201-102821

Lab Sample ID: 620-1711-6
Date Collected: 10/28/21 11:00
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.4

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND	^6+ *+ ^1+ ^+	8.36		mg/Kg	☼	11/02/21 15:09	11/04/21 23:50	1

Client Sample ID: SC1-N6-FR-P203-102821

Lab Sample ID: 620-1711-7
Date Collected: 10/28/21 11:15
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		17.6		mg/Kg	☼	11/02/21 15:09	11/08/21 14:57	2
Chromium	ND	*+	5.86		mg/Kg	☼	11/02/21 15:09	11/04/21 23:54	1
Copper	ND		11.7		mg/Kg	☼	11/02/21 15:09	11/08/21 14:57	2

Client Sample ID: SC1-N6-FR-P206-102821

Lab Sample ID: 620-1711-8
Date Collected: 10/28/21 11:25
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		17.4		mg/Kg	☼	11/02/21 15:09	11/08/21 15:03	2
Chromium	ND	*+	5.81		mg/Kg	☼	11/02/21 15:09	11/04/21 23:59	1
Copper	ND		11.6		mg/Kg	☼	11/02/21 15:09	11/08/21 15:03	2

Client Sample ID: SC1-N6-FR-P300-102821

Lab Sample ID: 620-1711-9
Date Collected: 10/28/21 11:45
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.4

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		21.4		mg/Kg	☼	11/02/21 15:09	11/08/21 15:08	2
Chromium	ND	*+	7.14		mg/Kg	☼	11/02/21 15:09	11/05/21 00:04	1
Copper	ND		14.3		mg/Kg	☼	11/02/21 15:09	11/08/21 15:08	2

Client Sample ID: SC1-N6-FR-P301-102821

Lab Sample ID: 620-1711-10
Date Collected: 10/28/21 11:55
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.6

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		19.7		mg/Kg	☼	11/02/21 15:09	11/08/21 15:14	2
Chromium	ND	*+	6.58		mg/Kg	☼	11/02/21 15:09	11/05/21 00:08	1
Copper	ND		13.2		mg/Kg	☼	11/02/21 15:09	11/08/21 15:14	2

Client Sample ID: SC1-N6-FR-P303-102821

Lab Sample ID: 620-1711-11
Date Collected: 10/28/21 12:05
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.8

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	F1 F2	24.8		mg/Kg	☼	11/02/21 15:12	11/08/21 16:26	2
Chromium	ND	F1 F2	16.5		mg/Kg	☼	11/02/21 15:12	11/08/21 16:26	2
Copper	ND	F1 F2	16.5		mg/Kg	☼	11/02/21 15:12	11/08/21 16:26	2

Client Sample ID: SC1-N6-FR-P306-102821

Lab Sample ID: 620-1711-12
Date Collected: 10/28/21 12:15
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		24.5		mg/Kg	☼	11/02/21 15:12	11/08/21 16:49	2
Chromium	ND		16.3		mg/Kg	☼	11/02/21 15:12	11/08/21 16:49	2
Copper	ND		16.3		mg/Kg	☼	11/02/21 15:12	11/08/21 16:49	2

Client Sample ID: SC1-N4-FR-P400-102821

Lab Sample ID: 620-1711-13
Date Collected: 10/28/21 13:20
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 12.0

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		22.1		mg/Kg	☼	11/02/21 15:12	11/08/21 17:56	2
Chromium	ND		14.7		mg/Kg	☼	11/02/21 15:12	11/08/21 17:56	2
Copper	ND		14.7		mg/Kg	☼	11/02/21 15:12	11/08/21 17:56	2

Client Sample ID: SC1-N4-FR-P401-102821

Lab Sample ID: 620-1711-14
Date Collected: 10/28/21 13:25
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.4

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		17.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:02	2
Chromium	ND		11.5		mg/Kg	☼	11/02/21 15:12	11/08/21 18:02	2
Copper	ND		11.5		mg/Kg	☼	11/02/21 15:12	11/08/21 18:02	2

Client Sample ID: SC1-N4-FR-P403-102821

Lab Sample ID: 620-1711-15
Date Collected: 10/28/21 13:30
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.8

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		22.8		mg/Kg	☼	11/02/21 15:12	11/08/21 18:08	2
Chromium	ND		15.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:08	2
Copper	ND		15.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:08	2

Client Sample ID: SC1-N4-FR-P406-102821

Lab Sample ID: 620-1711-16
Date Collected: 10/28/21 13:35
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.7

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		16.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:13	2
Chromium	ND		10.8		mg/Kg	☼	11/02/21 15:12	11/08/21 18:13	2
Copper	ND		10.8		mg/Kg	☼	11/02/21 15:12	11/08/21 18:13	2

Client Sample ID: SC1-S1-FR-P500-102821

Lab Sample ID: 620-1711-17
Date Collected: 10/28/21 15:40
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		22.8		mg/Kg	☼	11/02/21 15:12	11/08/21 18:19	2
Chromium	ND		15.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:19	2

Client Sample ID: SC1-S1-FR-P500-102821

Lab Sample ID: 620-1711-17
Date Collected: 10/28/21 15:40
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.2

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		15.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:19	2

Client Sample ID: SC1-S1-FR-P501-102821

Lab Sample ID: 620-1711-18
Date Collected: 10/28/21 15:35
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		21.3		mg/Kg	☼	11/02/21 15:12	11/08/21 18:25	2
Chromium	ND		14.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:25	2
Copper	ND		14.2		mg/Kg	☼	11/02/21 15:12	11/08/21 18:25	2

Client Sample ID: SC1-S1-FR-P503-102821

Lab Sample ID: 620-1711-19
Date Collected: 10/28/21 13:30
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.9

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		24.6		mg/Kg	☼	11/02/21 15:12	11/08/21 19:04	2
Chromium	ND		16.4		mg/Kg	☼	11/02/21 15:12	11/08/21 19:04	2
Copper	ND		16.4		mg/Kg	☼	11/02/21 15:12	11/08/21 19:04	2

Client Sample ID: SC1-S1-FR-P506-102821

Lab Sample ID: 620-1711-20
Date Collected: 10/28/21 15:25
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.9

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		22.3		mg/Kg	☼	11/02/21 15:12	11/08/21 19:09	2
Chromium	ND		14.9		mg/Kg	☼	11/02/21 15:12	11/08/21 19:09	2
Copper	ND		14.9		mg/Kg	☼	11/02/21 15:12	11/08/21 19:09	2

Client Sample ID: SC1-N1-FR-CTLU-102921

Lab Sample ID: 620-1711-21
Date Collected: 10/29/21 08:40
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.9

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15.4		mg/Kg	☼	11/02/21 15:12	11/08/21 19:15	2
Chromium	ND		10.3		mg/Kg	☼	11/02/21 15:12	11/08/21 19:15	2
Copper	ND		10.3		mg/Kg	☼	11/02/21 15:12	11/08/21 19:15	2

Client Sample ID: SC1-N2-FR-CTLU-102921

Lab Sample ID: 620-1711-22
Date Collected: 10/29/21 08:50
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 12.4

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		19.5		mg/Kg	☼	11/02/21 15:12	11/08/21 19:21	2
Chromium	ND		13.0		mg/Kg	☼	11/02/21 15:12	11/08/21 19:21	2
Copper	ND		13.0		mg/Kg	☼	11/02/21 15:12	11/08/21 19:21	2

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 620-5242/1-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5242

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	^+	0.913		mg/Kg		11/02/21 15:09	11/04/21 21:54	1
Copper	ND	^6+ ^1+ ^+	0.913		mg/Kg		11/02/21 15:09	11/04/21 21:54	1

Lab Sample ID: MB 620-5242/1-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5242

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.37		mg/Kg		11/02/21 15:09	11/08/21 12:08	1

Lab Sample ID: LCDSRM 620-5242/3-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5242

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium			70.7	60.60	^+	mg/Kg		85.7	68.6 - 102.3	7	20
Copper			134	138.2	^6+ ^1+ ^+	mg/Kg		103.1	75.4 - 106.7	2	20

Lab Sample ID: LCDSRM 620-5242/3-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5242

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			157	118.6		mg/Kg		75.6	73.9 - 105.1	1	20

Lab Sample ID: LCSSRM 620-5242/2-A
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5242

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium			70.7	64.71	^+	mg/Kg		91.5	68.6 - 102.3		
Copper			134	140.7	^6+ ^1+ ^+	mg/Kg		105.0	75.4 - 106.7		

Lab Sample ID: LCSSRM 620-5242/2-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5242

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			157	119.8		mg/Kg		76.3	73.9 - 105.1		

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 620-1711-1 MS
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC1-N6-FR-P100-102821
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND	*+	1120	1349		mg/Kg	☼	120	75 - 125

Lab Sample ID: 620-1711-1 MS
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC1-N6-FR-P100-102821
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		1120	1139		mg/Kg	☼	101	75 - 125
Copper	ND		1120	1231		mg/Kg	☼	110	75 - 125

Lab Sample ID: 620-1711-1 MSD
Matrix: Solid
Analysis Batch: 5331

Client Sample ID: SC1-N6-FR-P100-102821
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND	*+	1090	1309		mg/Kg	☼	120	75 - 125	3	20

Lab Sample ID: 620-1711-1 MSD
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC1-N6-FR-P100-102821
Prep Type: Total/NA
Prep Batch: 5242

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		1090	1098		mg/Kg	☼	101	75 - 125	4	20
Copper	ND		1090	1208		mg/Kg	☼	111	75 - 125	2	20

Lab Sample ID: MB 620-5243/1-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5243

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.44		mg/Kg		11/02/21 15:12	11/08/21 15:58	1
Chromium	ND		0.958		mg/Kg		11/02/21 15:12	11/08/21 15:58	1
Copper	ND		0.958		mg/Kg		11/02/21 15:12	11/08/21 15:58	1

Lab Sample ID: LCDSRM 620-5243/3-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5243

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			157	117.8		mg/Kg		75.0	73.9 - 105.1	1	20
Chromium			70.7	49.88		mg/Kg		70.5	68.6 - 102.3	1	20
Copper			134	112.2		mg/Kg		83.7	75.4 - 106.7	2	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 620-5243/2-A
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5243

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			157	119.3		mg/Kg		76.0	73.9 - 105.1		
Chromium			70.7	50.55		mg/Kg		71.5	68.6 - 102.3		
Copper			134	114.2		mg/Kg		85.2	75.4 - 106.7		

Lab Sample ID: 620-1711-11 MS
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC1-N6-FR-P303-102821
Prep Type: Total/NA
Prep Batch: 5243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	ND	F1 F2	1020	986.0	^3-	mg/Kg	☼	97	75 - 125		
Chromium	ND	F1 F2	1020	1027		mg/Kg	☼	101	75 - 125		
Copper	ND	F1 F2	1020	1074	^3-	mg/Kg	☼	105	75 - 125		

Lab Sample ID: 620-1711-11 MSD
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC1-N6-FR-P303-102821
Prep Type: Total/NA
Prep Batch: 5243

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND	F1 F2	766	749.3	F2	mg/Kg	☼	98	75 - 125	27	20
Chromium	ND	F1 F2	766	763.4	F2	mg/Kg	☼	100	75 - 125	29	20
Copper	ND	F1 F2	766	813.0	F2	mg/Kg	☼	106	75 - 125	28	20

Lab Sample ID: 620-1711-11 DU
Matrix: Solid
Analysis Batch: 5395

Client Sample ID: SC1-N6-FR-P303-102821
Prep Type: Total/NA
Prep Batch: 5243

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	ND	F1 F2		ND	^3-	mg/Kg	☼			NC	20
Chromium	ND	F1 F2		ND		mg/Kg	☼			NC	20
Copper	ND	F1 F2		ND	^3-	mg/Kg	☼			NC	20

Metals

Prep Batch: 5242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1711-1	SC1-N6-FR-P100-102821	Total/NA	Solid	3050B	
620-1711-2	SC1-N6-FR-P101-102821	Total/NA	Solid	3050B	
620-1711-3	SC1-N6-FR-P103-102821	Total/NA	Solid	3050B	
620-1711-4	SC1-N6-FR-P106-102821	Total/NA	Solid	3050B	
620-1711-5	SC1-N6-FR-P200-102821	Total/NA	Solid	3050B	
620-1711-6	SC1-N6-FR-P201-102821	Total/NA	Solid	3050B	
620-1711-7	SC1-N6-FR-P203-102821	Total/NA	Solid	3050B	
620-1711-8	SC1-N6-FR-P206-102821	Total/NA	Solid	3050B	
620-1711-9	SC1-N6-FR-P300-102821	Total/NA	Solid	3050B	
620-1711-10	SC1-N6-FR-P301-102821	Total/NA	Solid	3050B	
MB 620-5242/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 620-5242/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 620-5242/2-A	Lab Control Sample	Total/NA	Solid	3050B	
620-1711-1 MS	SC1-N6-FR-P100-102821	Total/NA	Solid	3050B	
620-1711-1 MSD	SC1-N6-FR-P100-102821	Total/NA	Solid	3050B	

Prep Batch: 5243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1711-11	SC1-N6-FR-P303-102821	Total/NA	Solid	3050B	
620-1711-12	SC1-N6-FR-P306-102821	Total/NA	Solid	3050B	
620-1711-13	SC1-N4-FR-P400-102821	Total/NA	Solid	3050B	
620-1711-14	SC1-N4-FR-P401-102821	Total/NA	Solid	3050B	
620-1711-15	SC1-N4-FR-P403-102821	Total/NA	Solid	3050B	
620-1711-16	SC1-N4-FR-P406-102821	Total/NA	Solid	3050B	
620-1711-17	SC1-S1-FR-P500-102821	Total/NA	Solid	3050B	
620-1711-18	SC1-S1-FR-P501-102821	Total/NA	Solid	3050B	
620-1711-19	SC1-S1-FR-P503-102821	Total/NA	Solid	3050B	
620-1711-20	SC1-S1-FR-P506-102821	Total/NA	Solid	3050B	
620-1711-21	SC1-N1-FR-CTLU-102921	Total/NA	Solid	3050B	
620-1711-22	SC1-N2-FR-CTLU-102921	Total/NA	Solid	3050B	
MB 620-5243/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 620-5243/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 620-5243/2-A	Lab Control Sample	Total/NA	Solid	3050B	
620-1711-11 MS	SC1-N6-FR-P303-102821	Total/NA	Solid	3050B	
620-1711-11 MSD	SC1-N6-FR-P303-102821	Total/NA	Solid	3050B	
620-1711-11 DU	SC1-N6-FR-P303-102821	Total/NA	Solid	3050B	

Analysis Batch: 5331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1711-1	SC1-N6-FR-P100-102821	Total/NA	Solid	6010D	5242
620-1711-2	SC1-N6-FR-P101-102821	Total/NA	Solid	6010D	5242
620-1711-4	SC1-N6-FR-P106-102821	Total/NA	Solid	6010D	5242
620-1711-5	SC1-N6-FR-P200-102821	Total/NA	Solid	6010D	5242
620-1711-6	SC1-N6-FR-P201-102821	Total/NA	Solid	6010D	5242
620-1711-7	SC1-N6-FR-P203-102821	Total/NA	Solid	6010D	5242
620-1711-8	SC1-N6-FR-P206-102821	Total/NA	Solid	6010D	5242
620-1711-9	SC1-N6-FR-P300-102821	Total/NA	Solid	6010D	5242
620-1711-10	SC1-N6-FR-P301-102821	Total/NA	Solid	6010D	5242
MB 620-5242/1-A	Method Blank	Total/NA	Solid	6010D	5242
LCDSRM 620-5242/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5242
LCSSRM 620-5242/2-A	Lab Control Sample	Total/NA	Solid	6010D	5242

Metals (Continued)

Analysis Batch: 5331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1711-1 MS	SC1-N6-FR-P100-102821	Total/NA	Solid	6010D	5242
620-1711-1 MSD	SC1-N6-FR-P100-102821	Total/NA	Solid	6010D	5242

Analysis Batch: 5395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1711-1	SC1-N6-FR-P100-102821	Total/NA	Solid	6010D	5242
620-1711-2	SC1-N6-FR-P101-102821	Total/NA	Solid	6010D	5242
620-1711-3	SC1-N6-FR-P103-102821	Total/NA	Solid	6010D	5242
620-1711-4	SC1-N6-FR-P106-102821	Total/NA	Solid	6010D	5242
620-1711-5	SC1-N6-FR-P200-102821	Total/NA	Solid	6010D	5242
620-1711-6	SC1-N6-FR-P201-102821	Total/NA	Solid	6010D	5242
620-1711-7	SC1-N6-FR-P203-102821	Total/NA	Solid	6010D	5242
620-1711-8	SC1-N6-FR-P206-102821	Total/NA	Solid	6010D	5242
620-1711-9	SC1-N6-FR-P300-102821	Total/NA	Solid	6010D	5242
620-1711-10	SC1-N6-FR-P301-102821	Total/NA	Solid	6010D	5242
620-1711-11	SC1-N6-FR-P303-102821	Total/NA	Solid	6010D	5243
620-1711-12	SC1-N6-FR-P306-102821	Total/NA	Solid	6010D	5243
620-1711-13	SC1-N4-FR-P400-102821	Total/NA	Solid	6010D	5243
620-1711-14	SC1-N4-FR-P401-102821	Total/NA	Solid	6010D	5243
620-1711-15	SC1-N4-FR-P403-102821	Total/NA	Solid	6010D	5243
620-1711-16	SC1-N4-FR-P406-102821	Total/NA	Solid	6010D	5243
620-1711-17	SC1-S1-FR-P500-102821	Total/NA	Solid	6010D	5243
620-1711-18	SC1-S1-FR-P501-102821	Total/NA	Solid	6010D	5243
620-1711-19	SC1-S1-FR-P503-102821	Total/NA	Solid	6010D	5243
620-1711-20	SC1-S1-FR-P506-102821	Total/NA	Solid	6010D	5243
620-1711-21	SC1-N1-FR-CTLU-102921	Total/NA	Solid	6010D	5243
620-1711-22	SC1-N2-FR-CTLU-102921	Total/NA	Solid	6010D	5243
MB 620-5242/1-A	Method Blank	Total/NA	Solid	6010D	5242
MB 620-5243/1-A	Method Blank	Total/NA	Solid	6010D	5243
LCDSRM 620-5242/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5242
LCDSRM 620-5243/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5243
LCSSRM 620-5242/2-A	Lab Control Sample	Total/NA	Solid	6010D	5242
LCSSRM 620-5243/2-A	Lab Control Sample	Total/NA	Solid	6010D	5243
620-1711-1 MS	SC1-N6-FR-P100-102821	Total/NA	Solid	6010D	5242
620-1711-1 MSD	SC1-N6-FR-P100-102821	Total/NA	Solid	6010D	5242
620-1711-11 MS	SC1-N6-FR-P303-102821	Total/NA	Solid	6010D	5243
620-1711-11 MSD	SC1-N6-FR-P303-102821	Total/NA	Solid	6010D	5243
620-1711-11 DU	SC1-N6-FR-P303-102821	Total/NA	Solid	6010D	5243

General Chemistry

Analysis Batch: 5208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1711-1	SC1-N6-FR-P100-102821	Total/NA	Solid	Moisture	
620-1711-2	SC1-N6-FR-P101-102821	Total/NA	Solid	Moisture	
620-1711-3	SC1-N6-FR-P103-102821	Total/NA	Solid	Moisture	
620-1711-4	SC1-N6-FR-P106-102821	Total/NA	Solid	Moisture	
620-1711-5	SC1-N6-FR-P200-102821	Total/NA	Solid	Moisture	
620-1711-6	SC1-N6-FR-P201-102821	Total/NA	Solid	Moisture	
620-1711-7	SC1-N6-FR-P203-102821	Total/NA	Solid	Moisture	
620-1711-8	SC1-N6-FR-P206-102821	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 5208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1711-9	SC1-N6-FR-P300-102821	Total/NA	Solid	Moisture	
620-1711-10	SC1-N6-FR-P301-102821	Total/NA	Solid	Moisture	
620-1711-11	SC1-N6-FR-P303-102821	Total/NA	Solid	Moisture	
620-1711-12	SC1-N6-FR-P306-102821	Total/NA	Solid	Moisture	
620-1711-13	SC1-N4-FR-P400-102821	Total/NA	Solid	Moisture	
620-1711-14	SC1-N4-FR-P401-102821	Total/NA	Solid	Moisture	
620-1711-15	SC1-N4-FR-P403-102821	Total/NA	Solid	Moisture	
620-1711-16	SC1-N4-FR-P406-102821	Total/NA	Solid	Moisture	
620-1711-17	SC1-S1-FR-P500-102821	Total/NA	Solid	Moisture	
620-1711-18	SC1-S1-FR-P501-102821	Total/NA	Solid	Moisture	
620-1711-19	SC1-S1-FR-P503-102821	Total/NA	Solid	Moisture	
620-1711-20	SC1-S1-FR-P506-102821	Total/NA	Solid	Moisture	
620-1711-21	SC1-N1-FR-CTLU-102921	Total/NA	Solid	Moisture	
620-1711-22	SC1-N2-FR-CTLU-102921	Total/NA	Solid	Moisture	
620-1711-1 DU	SC1-N6-FR-P100-102821	Total/NA	Solid	Moisture	
620-1711-11 DU	SC1-N6-FR-P303-102821	Total/NA	Solid	Moisture	
620-1711-22 DU	SC1-N2-FR-CTLU-102921	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Client Sample ID: SC1-N6-FR-P100-102821 — **Lab Sample ID: 620-1711-1**
Date Collected: 10/28/21 09:45 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P100-102821 — **Lab Sample ID: 620-1711-1**
Date Collected: 10/28/21 09:45 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 10.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 13:58	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:08	EDT	ENE

Client Sample ID: SC1-N6-FR-P101-102821 — **Lab Sample ID: 620-1711-2**
Date Collected: 10/28/21 10:05 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P101-102821 — **Lab Sample ID: 620-1711-2**
Date Collected: 10/28/21 10:05 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 11.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 14:14	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:31	EDT	ENE

Client Sample ID: SC1-N6-FR-P103-102821 — **Lab Sample ID: 620-1711-3**
Date Collected: 10/28/21 10:15 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P103-102821 — **Lab Sample ID: 620-1711-3**
Date Collected: 10/28/21 10:15 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 10.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 14:23	EDT	ENE

Client Sample ID: SC1-N6-FR-P106-102821 — **Lab Sample ID: 620-1711-4**
Date Collected: 10/28/21 09:30 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P106-102821 — **Lab Sample ID: 620-1711-4**
Date Collected: 10/28/21 09:30 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 11.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 14:29	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:40	EDT	ENE

Client Sample ID: SC1-N6-FR-P200-102821 — **Lab Sample ID: 620-1711-5**
Date Collected: 10/28/21 10:45 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P200-102821 — **Lab Sample ID: 620-1711-5**
Date Collected: 10/28/21 10:45 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 11.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 14:46	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:45	EDT	ENE

Client Sample ID: SC1-N6-FR-P201-102821 — **Lab Sample ID: 620-1711-6**
Date Collected: 10/28/21 11:00 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P201-102821 — **Lab Sample ID: 620-1711-6**
Date Collected: 10/28/21 11:00 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 11.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 14:51	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:50	EDT	ENE

Client Sample ID: SC1-N6-FR-P203-102821
Lab Sample ID: 620-1711-7
Date Collected: 10/28/21 11:15
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P203-102821
Lab Sample ID: 620-1711-7
Date Collected: 10/28/21 11:15
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 14:57	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:54	EDT	ENE

Client Sample ID: SC1-N6-FR-P206-102821
Lab Sample ID: 620-1711-8
Date Collected: 10/28/21 11:25
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P206-102821
Lab Sample ID: 620-1711-8
Date Collected: 10/28/21 11:25
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 15:03	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/04/21 23:59	EDT	ENE

Client Sample ID: SC1-N6-FR-P300-102821
Lab Sample ID: 620-1711-9
Date Collected: 10/28/21 11:45
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P300-102821
Lab Sample ID: 620-1711-9
Date Collected: 10/28/21 11:45
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 15:08	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/05/21 00:04	EDT	ENE

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Client Sample ID: SC1-N6-FR-P301-102821
Lab Sample ID: 620-1711-10
Date Collected: 10/28/21 11:55
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P301-102821
Lab Sample ID: 620-1711-10
Date Collected: 10/28/21 11:55
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 15:14	EDT	ENE
Total/NA	Prep	3050B			5242	11/02/21 15:09	CEV	ENE
Total/NA	Analysis	6010D		1	5331	11/05/21 00:08	EDT	ENE

Client Sample ID: SC1-N6-FR-P303-102821
Lab Sample ID: 620-1711-11
Date Collected: 10/28/21 12:05
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P303-102821
Lab Sample ID: 620-1711-11
Date Collected: 10/28/21 12:05
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 16:26	EDT	ENE

Client Sample ID: SC1-N6-FR-P306-102821
Lab Sample ID: 620-1711-12
Date Collected: 10/28/21 12:15
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N6-FR-P306-102821
Lab Sample ID: 620-1711-12
Date Collected: 10/28/21 12:15
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 16:49	EDT	ENE

Client Sample ID: SC1-N4-FR-P400-102821 — **Lab Sample ID: 620-1711-13**
Date Collected: 10/28/21 13:20 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N4-FR-P400-102821 — **Lab Sample ID: 620-1711-13**
Date Collected: 10/28/21 13:20 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 12.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 17:56	EDT	ENE

Client Sample ID: SC1-N4-FR-P401-102821 — **Lab Sample ID: 620-1711-14**
Date Collected: 10/28/21 13:25 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N4-FR-P401-102821 — **Lab Sample ID: 620-1711-14**
Date Collected: 10/28/21 13:25 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 11.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 18:02	EDT	ENE

Client Sample ID: SC1-N4-FR-P403-102821 — **Lab Sample ID: 620-1711-15**
Date Collected: 10/28/21 13:30 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N4-FR-P403-102821 — **Lab Sample ID: 620-1711-15**
Date Collected: 10/28/21 13:30 — **Matrix: Solid**
Date Received: 10/29/21 18:06 — **Percent Solids: 10.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 18:08	EDT	ENE

Client Sample ID: SC1-N4-FR-P406-102821 — **Lab Sample ID: 620-1711-16**
Date Collected: 10/28/21 13:35 — **Matrix: Solid**
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Client Sample ID: SC1-N4-FR-P406-102821
Lab Sample ID: 620-1711-16
Date Collected: 10/28/21 13:35
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 18:13	EDT	ENE

Client Sample ID: SC1-S1-FR-P500-102821
Lab Sample ID: 620-1711-17
Date Collected: 10/28/21 15:40
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-S1-FR-P500-102821
Lab Sample ID: 620-1711-17
Date Collected: 10/28/21 15:40
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 18:19	EDT	ENE

Client Sample ID: SC1-S1-FR-P501-102821
Lab Sample ID: 620-1711-18
Date Collected: 10/28/21 15:35
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-S1-FR-P501-102821
Lab Sample ID: 620-1711-18
Date Collected: 10/28/21 15:35
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 18:25	EDT	ENE

Client Sample ID: SC1-S1-FR-P503-102821
Lab Sample ID: 620-1711-19
Date Collected: 10/28/21 13:30
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Client Sample ID: SC1-S1-FR-P503-102821
Lab Sample ID: 620-1711-19
Date Collected: 10/28/21 13:30
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 11.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 19:04	EDT	ENE

Client Sample ID: SC1-S1-FR-P506-102821
Lab Sample ID: 620-1711-20
Date Collected: 10/28/21 15:25
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-S1-FR-P506-102821
Lab Sample ID: 620-1711-20
Date Collected: 10/28/21 15:25
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 19:09	EDT	ENE

Client Sample ID: SC1-N1-FR-CTLU-102921
Lab Sample ID: 620-1711-21
Date Collected: 10/29/21 08:40
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Client Sample ID: SC1-N1-FR-CTLU-102921
Lab Sample ID: 620-1711-21
Date Collected: 10/29/21 08:40
Matrix: Solid
Date Received: 10/29/21 18:06
Percent Solids: 10.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 19:15	EDT	ENE

Client Sample ID: SC1-N2-FR-CTLU-102921
Lab Sample ID: 620-1711-22
Date Collected: 10/29/21 08:50
Matrix: Solid
Date Received: 10/29/21 18:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5208	11/01/21 15:38	KFS	ENE

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Client Sample ID: SC1-N2-FR-CTLU-102921
Date Collected: 10/29/21 08:50
Date Received: 10/29/21 18:06

Lab Sample ID: 620-1711-22
Matrix: Solid
Percent Solids: 12.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5243	11/02/21 15:12	CEV	ENE
Total/NA	Analysis	6010D		2	5395	11/08/21 19:21	EDT	ENE

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: Mabbett & Associates, Inc. Job ID: 620-1711-1
Project/Site: SC-3 - Carver, MA

Laboratory: Eurofins Environment Testing New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-RI907	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Copper
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	ENE
Moisture	Percent Moisture	EPA	ENE
3050B	Preparation, Metals	SW846	ENE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1711-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-1711-1	SC1-N6-FR-P100-102821	Solid	10/28/21 09:45	10/29/21 18:06
620-1711-2	SC1-N6-FR-P101-102821	Solid	10/28/21 10:05	10/29/21 18:06
620-1711-3	SC1-N6-FR-P103-102821	Solid	10/28/21 10:15	10/29/21 18:06
620-1711-4	SC1-N6-FR-P106-102821	Solid	10/28/21 09:30	10/29/21 18:06
620-1711-5	SC1-N6-FR-P200-102821	Solid	10/28/21 10:45	10/29/21 18:06
620-1711-6	SC1-N6-FR-P201-102821	Solid	10/28/21 11:00	10/29/21 18:06
620-1711-7	SC1-N6-FR-P203-102821	Solid	10/28/21 11:15	10/29/21 18:06
620-1711-8	SC1-N6-FR-P206-102821	Solid	10/28/21 11:25	10/29/21 18:06
620-1711-9	SC1-N6-FR-P300-102821	Solid	10/28/21 11:45	10/29/21 18:06
620-1711-10	SC1-N6-FR-P301-102821	Solid	10/28/21 11:55	10/29/21 18:06
620-1711-11	SC1-N6-FR-P303-102821	Solid	10/28/21 12:05	10/29/21 18:06
620-1711-12	SC1-N6-FR-P306-102821	Solid	10/28/21 12:15	10/29/21 18:06
620-1711-13	SC1-N4-FR-P400-102821	Solid	10/28/21 13:20	10/29/21 18:06
620-1711-14	SC1-N4-FR-P401-102821	Solid	10/28/21 13:25	10/29/21 18:06
620-1711-15	SC1-N4-FR-P403-102821	Solid	10/28/21 13:30	10/29/21 18:06
620-1711-16	SC1-N4-FR-P406-102821	Solid	10/28/21 13:35	10/29/21 18:06
620-1711-17	SC1-S1-FR-P500-102821	Solid	10/28/21 15:40	10/29/21 18:06
620-1711-18	SC1-S1-FR-P501-102821	Solid	10/28/21 15:35	10/29/21 18:06
620-1711-19	SC1-S1-FR-P503-102821	Solid	10/28/21 13:30	10/29/21 18:06
620-1711-20	SC1-S1-FR-P506-102821	Solid	10/28/21 15:25	10/29/21 18:06
620-1711-21	SC1-N1-FR-CTLU-102921	Solid	10/29/21 08:40	10/29/21 18:06
620-1711-22	SC1-N2-FR-CTLU-102921	Solid	10/29/21 08:50	10/29/21 18:06

620-1711 Chain of Custody

1711 EM

Environment Testing New England

CHAIN OF CUSTODY RECORD

Page 1 of 3

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed 11/5/21

All TATs subject to laboratory approval
Min 24-hr notification needed for rushes.
Samples disposed after 30 days unless otherwise instructed

Report To: Mabbett
105 Central St
Stoneham MA 02180

Telephone # 781-275-6050
Project Mgr: S. Vetere

Invoice To Send as report

PO No. 5948 Quote # 00102023

Project No: E202105A.000.00A

Site Name. SC-1

Location. Carver State. MA

Sampler(s) MCB/DWM

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= cranberry X2= X3=

G= Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic Bags	total As, Cr, Cu, Pb, Zn	Check if chlorinated
	SC1-N6-FR-P100-102821	10/28	945		X1				1	X	
	SC1-N6-FR-P101-102821		1005						1	X	
	SC1-N6-FR-P103-102821		1015						1	X	
	SC1-N6-FR-P106-102821		930						1	X	
	SC1-N6-FR-P200-102821		1045						1	X	
	SC1-N6-FR-P201-102821		1100						1	X	
	SC1-N6-FR-P203-102821		1115						1	X	
	SC1-N6-FR-P206-102821		1125						1	X	
	SC1-N6-FR-P300-102821		1145						1	X	
	SC1-N6-FR-P301-102821		1155						1	X	

List Preservative Code below:

Analysis

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other
State-specific reporting standards.

Relinquished by:	Received by:	Date:	Time:
		10/29/21	15:35
		10/29/21	18:06

Temp °C
Observed 4.4
Correction Factor +1
Corrected 5.4
IR ID # 6

☒ EDD format excel
☐ E-mail to vetere@mabbett.com
bloom@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☒ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

11/8/2021

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

eurofins

Environment Testing New England

CHAIN OF CUSTODY RECORD

Page 2 of 3

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed 11/5/2021

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed

Report To: Mabbett & Associates Inc.
105 Central St, Suite 4100

Telephone #

Project Mgr: S. Peter

Invoice To:

PO No. Quote #

Project No: R202105A.000.004

Site Name: SC-1

Location: Carver State: MA

Sampler(s): MLD/BWM

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= cranberry X2= X3=

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic Bags	total As, Cr, Co	Analysis	Check if chlorinated
	SC1-N6-FR-P303-102821	10/28	1205		X1				1	X		☐
	SC1-N6-FR-P306-102821		1215						1	X		☐
	SC1-N4-FR-P400-102821		1320						1	X		☐
	SC1-N4-FR-P401-102821		1325						1	X		☐
	SC1-N4-FR-P403 102821		1330						1	X		☐
	SC1-N4-FR-P406-102821		1335						1	X		☐
	SC1-S1-FR-P500-102821		1540						1	X		☐
	SC1-S1-FR-P501-102821		1535						1	X		☐
	SC1-S1-FR-P503 102821		1330						1	X		☐
	SC1-S-FR-P506-102821		1525						1	X		☐

List Preservative Code below:

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other
State-specific reporting standards

Relinquished by:	Received by:	Date:	Time:
		10/29/21	15:35
		10/27/21	18:06

Temp °C
Observed: 4.4
Correction Factor: +1
Corrected: 5.4
IR ID #: 6

☐ EDD format
☐ E-mail to

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken

☒ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

eurofins | Environment Testing New England

CHAIN OF CUSTODY RECORD

Page 3 of 3

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed. 11-5-21

All TATs subject to laboratory approval
Min 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Mabbett
105 Central St
Stoneham MA 02180

Telephone # 781-275-6050
Project Mgr: S. Vetere

Invoice To: same as 2

PO No. 5948 Quote # 00102623

Project No: R2021054.000.004
Site Name SC-1
Location. carver State. MA
Sampler(s)

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= ~~Mfg~~ cranberry X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Plastic bag	Containers: total As, Cr, Cu	Analysis	Check if chlorinated
	SC1-N1-FR-CTLW-102921	10/29	840	X1→						X	X		☐
	SC1-N2-FR-CTLW-102921	10/29	850	X1→						X	X		☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐

List Preservative Code below: I

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☒ No
CT DPH RCP Report? ☐ Yes ☒ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other
State-specific reporting standards.

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	10/29/21	15:35
[signature]	[signature]	10/29/21	18:05

Temp °C
Observed 4.4
Correction Factor +1
Corrected 5.4
IR ID # F

☒ EDD format excel
☒ E-mail to vetere@mabbett.com
bloom@ "

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☒ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

Rev Jan 2020

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc.

Job Number: 620-1711-1

Login Number: 1711
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins Environment Testing New England

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Environment Testing New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-1873-1
Client Project/Site: Solar Carver

For:
Mabbett & Associates, Inc.
105 Central Street
Suite 4100
Stoneham, Massachusetts 02180

Attn: Mr. Stephen Vetere

Authorized for release by:
11/19/2021 5:58:42 PM

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Qualifiers

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Job ID: 620-1873-1

Laboratory: Eurofins Environment Testing New England

Narrative

Job Narrative
620-1873-1

Comments
No additional comments.

Receipt
The sample was received on 11/11/2021 5:00 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4º C.

Metals
Methods 6010, 6010D: The laboratory control sample (LCSSRM) for preparation batch 620-5720 and analytical batch 620-5886 recovered outside control limits for the following analytes: chromium. Data was accepted based on the LCDSRM passing within method criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method Moisture: The sample duplicate precision for the following sample associated with analytical batch 620-5672 was outside control limits: (620-1868-D-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Client Sample ID: SC1-N6-FR-P103-111021

Lab Sample ID: 620-1873-1

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Client Sample ID: SC1-N6-FR-P103-111021
Date Collected: 11/10/21 08:45
Date Received: 11/11/21 17:00

Lab Sample ID: 620-1873-1
Matrix: Solid
Percent Solids: 11.4

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15.9		mg/Kg	☼	11/16/21 11:54	11/19/21 13:16	1
Chromium	ND	*-	10.6		mg/Kg	☼	11/16/21 11:54	11/19/21 13:16	1
Copper	ND		10.6		mg/Kg	☼	11/16/21 11:54	11/19/21 13:16	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 620-5720/1-A
Matrix: Solid
Analysis Batch: 5886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5720

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.46		mg/Kg		11/16/21 11:54	11/19/21 11:51	1
Chromium	ND		0.972		mg/Kg		11/16/21 11:54	11/19/21 11:51	1
Copper	ND		0.972		mg/Kg		11/16/21 11:54	11/19/21 11:51	1

Lab Sample ID: LCDSRM 620-5720/3-A
Matrix: Solid
Analysis Batch: 5886

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5720

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			157	119.4		mg/Kg		76.1	73.9 - 105.1	0	20
Chromium			70.7	48.59		mg/Kg		68.7	68.6 - 102.3	2	20
Copper			134	108.7		mg/Kg		81.1	75.4 - 106.7	0	20

Lab Sample ID: LCSSRM 620-5720/2-A
Matrix: Solid
Analysis Batch: 5886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5720

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic			157	118.9		mg/Kg		75.7	73.9 - 105.1
Chromium			70.7	47.72	*-	mg/Kg		67.5	68.6 - 102.3
Copper			134	108.6		mg/Kg		81.1	75.4 - 106.7

QC Association Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Metals

Prep Batch: 5720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1873-1	SC1-N6-FR-P103-111021	Total/NA	Solid	3050B	
MB 620-5720/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 620-5720/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 620-5720/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 5886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1873-1	SC1-N6-FR-P103-111021	Total/NA	Solid	6010D	5720
MB 620-5720/1-A	Method Blank	Total/NA	Solid	6010D	5720
LCDSRM 620-5720/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	5720
LCSSRM 620-5720/2-A	Lab Control Sample	Total/NA	Solid	6010D	5720

General Chemistry

Analysis Batch: 5672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1873-1	SC1-N6-FR-P103-111021	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Client Sample ID: SC1-N6-FR-P103-111021
Date Collected: 11/10/21 08:45
Date Received: 11/11/21 17:00

Lab Sample ID: 620-1873-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	5672	11/15/21 15:24	KFS	ENE

Client Sample ID: SC1-N6-FR-P103-111021
Date Collected: 11/10/21 08:45
Date Received: 11/11/21 17:00

Lab Sample ID: 620-1873-1
Matrix: Solid
Percent Solids: 11.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			5720	11/16/21 11:54	CEV	ENE
Total/NA	Analysis	6010D		1	5886	11/19/21 13:16	CEV	ENE

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: Mabbett & Associates, Inc. Job ID: 620-1873-1
Project/Site: Solar Carver

Laboratory: Eurofins Environment Testing New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-RI907	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Copper
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	ENE
Moisture	Percent Moisture	EPA	ENE
3050B	Preparation, Metals	SW846	ENE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-1873-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-1873-1	SC1-N6-FR-P103-111021	Solid	11/10/21 08:45	11/11/21 17:00

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CI 620-1873 Chain of Custody ORD

Page ___

Special Handling:

☒ Standard TAT - 7 to 10 business days

☐ Rush TAT - Date Needed _____

All TATs subject to laboratory approval
Min 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

11/19/2021

Report To: Mabbett & Associates
105 Central St., Suite 4100
Stone Ham, MA 02180

Telephone #: 781-275-6056 x 312
Project Mgr: Stephen Vetere

Invoice To: AccountsPayable@mabbett.com

PO No. 5946 Quote # 62000768

Project No: R2021054.000.007
Site Name. Solar Carver
Location. Carver State. MA
Sampler(s) MCB

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= ICE 12= _____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= _____ X2= _____ X3= _____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Zip Lock Bag	List Preservative Code below: 11	Analysis: Total As, Cu	Check if chlorinated
	SC1-N6-FR-P103-111021	11/10/21	08:45	C	FR					-		X	☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other _____
State-specific reporting standards.

Relinquished by:	Received by:	Date:	Time:	Temp °C
Michael Bloom	Dawn Dec	11/11/21	12:30	Observed 0.4
Dawn Dec	Tony Cox	11/11/21	16:09	Correction Factor +1
				Corrected +1.4
				IR ID# 6

☒ EDD format: excel
☒ E-mail to bloom@mabbett.com
vetere@mabbett.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken

☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc. Job Number: 620-1873-1

Login Number: 1873 **List Source: Eurofins Environment Testing New England**
List Number: 1
Creator: Makhoul, Elie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Groundwater Analytical Data Reports

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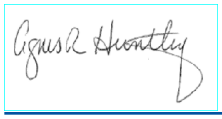
ANALYTICAL REPORT

Eurofins Environment Testing New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-1722-1
Client Project/Site: SC-3 - Carver, MA
Revision: 1

For:
Mabbett & Associates, Inc.
105 Central Street
Suite 4100
Stoneham, Massachusetts 02180

Attn: Mr. Stephen Vetere



Authorized for release by:
12/6/2021 8:52:27 PM

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

LINKS

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Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^6+	Interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-1722-1

Laboratory: Eurofins Environment Testing New England

Narrative

Job Narrative
620-1722-1

Comments
No additional comments.

Receipt
The samples were received on 11/1/2021 4:57 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0º C.

Metals
Method 6010D: QC high for chromium and copper, sample is non detect

SC3-MW03-11121 (620-1722-6)

Methods 6010, 6010D: The low level check standard recovery associated with batch 620-5346 is outside the acceptance criteria for the following analyte(s): arsenic. Data was accepted based on QC failing high with sample results all being non-detect.

Method 6010D: CRI failed high for Cr but soil CRI passed, data was accepted based on samples being either above the soil RL or non detect.

Method 6010D: Various QC high for Cu but sample is non detect so this data is acceptable based on high bias non detect
SC3-MW01-11121 (620-1722-4)

Method 6010D: Sulfur had a hit in the ICB but passed in the rerun (CCB). The original CRI failed for sulfur as well, but was rerun in the SCRI at the same concentration which passed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Revision
The report being provided is a revision of the original report sent on 11/9/2021. The report (revision 1) is being revised due to: Report revised to remove Hexavalent and Trivalent chromium data per request of the client..

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Client Sample ID: SC1-MW01-11121 — Lab Sample ID: 620-1722-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0545	^3+	0.0100		mg/L	1		6010D	Total/NA
Copper	0.0264		0.0100		mg/L	1		6010D	Total/NA
Sulfur	5.09	^3+ ^2	0.100		mg/L	1		6010D	Total/NA
Iron	17.3		0.100		mg/L	1		6010D	Total/NA

Client Sample ID: SC1-MW02-11121 — Lab Sample ID: 620-1722-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0513	^3+	0.0100		mg/L	1		6010D	Total/NA
Copper	0.0286		0.0100		mg/L	1		6010D	Total/NA
Sulfur	44.6	^3+ ^2	1.00		mg/L	10		6010D	Total/NA
Iron	16.6		1.00		mg/L	10		6010D	Total/NA

Client Sample ID: SC1-MW03-11121 — Lab Sample ID: 620-1722-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00840		0.00800		mg/L	1		6010D	Total/NA
Chromium	0.0140	^3+	0.0100		mg/L	1		6010D	Total/NA
Copper	0.0456		0.0100		mg/L	1		6010D	Total/NA
Sulfur	1.28	^3+ ^2	0.100		mg/L	1		6010D	Total/NA
Iron	3.02		0.100		mg/L	1		6010D	Total/NA

Client Sample ID: SC3-MW01-11121 — Lab Sample ID: 620-1722-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sulfur	2.10	^3+ ^2	0.100		mg/L	1		6010D	Total/NA
Iron	0.931		0.100		mg/L	1		6010D	Total/NA

Client Sample ID: SC3-MW02-11121 — Lab Sample ID: 620-1722-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0279	^3+	0.0100		mg/L	1		6010D	Total/NA
Copper	0.0272		0.0100		mg/L	1		6010D	Total/NA
Sulfur	2.07	^3+ ^2	0.100		mg/L	1		6010D	Total/NA
Iron	20.3		0.100		mg/L	1		6010D	Total/NA

Client Sample ID: SC3-MW03-11121 — Lab Sample ID: 620-1722-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sulfur	1.81	^3+ ^2	0.100		mg/L	1		6010D	Total/NA
Iron	1.16		0.100		mg/L	1		6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Client Sample ID: SC1-MW01-11121

Lab Sample ID: 620-1722-1
Matrix: Water
Date Collected: 11/01/21 12:15
Date Received: 11/01/21 16:57

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.00800		mg/L		11/02/21 13:43	11/05/21 05:03	1
Chromium	**0.0545**	**^3+**	0.0100		mg/L		11/02/21 13:43	11/05/21 15:50	1
Copper	**0.0264**		0.0100		mg/L		11/02/21 13:43	11/09/21 16:03	1
Sulfur	**5.09**	**^3+ ^2**	0.100		mg/L		11/02/21 13:43	11/05/21 15:50	1
Iron	**17.3**		0.100		mg/L		11/02/21 13:43	11/05/21 15:50	1

Client Sample ID: SC1-MW02-11121

Lab Sample ID: 620-1722-2
Matrix: Water
Date Collected: 11/01/21 11:45
Date Received: 11/01/21 16:57

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.00800		mg/L		11/02/21 13:43	11/05/21 05:29	1
Chromium	**0.0513**	**^3+**	0.0100		mg/L		11/02/21 13:43	11/05/21 16:33	1
Copper	**0.0286**		0.0100		mg/L		11/02/21 13:43	11/09/21 16:28	1
Sulfur	**44.6**	**^3+ ^2**	1.00		mg/L		11/02/21 13:43	11/05/21 16:27	10
Iron	**16.6**		1.00		mg/L		11/02/21 13:43	11/05/21 16:27	10

Client Sample ID: SC1-MW03-11121

Lab Sample ID: 620-1722-3
Matrix: Water
Date Collected: 11/01/21 12:55
Date Received: 11/01/21 16:57

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00840**		0.00800		mg/L		11/02/21 13:43	11/09/21 16:33	1
Chromium	**0.0140**	**^3+**	0.0100		mg/L		11/02/21 13:43	11/09/21 16:33	1
Copper	**0.0456**		0.0100		mg/L		11/02/21 13:43	11/09/21 16:33	1
Sulfur	**1.28**	**^3+ ^2**	0.100		mg/L		11/02/21 13:43	11/05/21 16:38	1
Iron	**3.02**		0.100		mg/L		11/02/21 13:43	11/05/21 16:38	1

Client Sample ID: SC3-MW01-11121

Lab Sample ID: 620-1722-4
Matrix: Water
Date Collected: 11/01/21 14:35
Date Received: 11/01/21 16:57

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.00800		mg/L		11/02/21 13:43	11/05/21 05:49	1
Chromium	ND	^3+	0.0100		mg/L		11/02/21 13:43	11/05/21 16:43	1
Copper	ND	*+ ^3+ ^6+ ^+	0.0100		mg/L		11/02/21 13:43	11/05/21 16:43	1
Sulfur	**2.10**	**^3+ ^2**	0.100		mg/L		11/02/21 13:43	11/05/21 16:43	1
Iron	**0.931**		0.100		mg/L		11/02/21 13:43	11/05/21 16:43	1

Client Sample ID: SC3-MW02-11121

Lab Sample ID: 620-1722-5
Matrix: Water
Date Collected: 11/01/21 13:30
Date Received: 11/01/21 16:57

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.00800		mg/L		11/02/21 13:43	11/05/21 06:05	1
Chromium	**0.0279**	**^3+**	0.0100		mg/L		11/02/21 13:43	11/05/21 16:59	1
Copper	**0.0272**		0.0100		mg/L		11/02/21 13:43	11/09/21 16:38	1

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Client Sample ID: SC3-MW02-11121

Lab Sample ID: 620-1722-5

Date Collected: 11/01/21 13:30

Matrix: Water

Date Received: 11/01/21 16:57

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfur	**2.07**	**^3+ ^2**	0.100		mg/L		11/02/21 13:43	11/05/21 16:59	1
Iron	**20.3**		0.100		mg/L		11/02/21 13:43	11/05/21 16:59	1

Client Sample ID: SC3-MW03-11121

Lab Sample ID: 620-1722-6

Date Collected: 11/01/21 14:05

Matrix: Water

Date Received: 11/01/21 16:57

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.00800		mg/L		11/02/21 13:43	11/05/21 06:10	1
Chromium	ND	^3+	0.0100		mg/L		11/02/21 13:43	11/03/21 16:56	1
Copper	ND	^3+ *+ ^1+ ^6+ ^+	0.0100		mg/L		11/02/21 13:43	11/03/21 16:56	1
Sulfur	**1.81**	**^3+ ^2**	0.100		mg/L		11/02/21 13:43	11/05/21 17:05	1
Iron	**1.16**		0.100		mg/L		11/02/21 13:43	11/05/21 17:05	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 620-5231/1-A
Matrix: Water
Analysis Batch: 5297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5231

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	^3+	0.0100		mg/L		11/02/21 13:43	11/03/21 14:47	1
Copper	ND	^3+ ^1+ ^6+ ^+	0.0100		mg/L		11/02/21 13:43	11/03/21 14:47	1

Lab Sample ID: MB 620-5231/1-A
Matrix: Water
Analysis Batch: 5346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5231

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.00800		mg/L		11/02/21 13:43	11/05/21 04:01	1

Lab Sample ID: MB 620-5231/1-A
Matrix: Water
Analysis Batch: 5336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5231

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	^3+	0.0100		mg/L		11/02/21 13:43	11/05/21 15:34	1
Copper	ND	^3+ ^6+ ^+	0.0100		mg/L		11/02/21 13:43	11/05/21 15:34	1
Sulfur	ND	^3+	0.100		mg/L		11/02/21 13:43	11/05/21 15:34	1
Iron	ND		0.100		mg/L		11/02/21 13:43	11/05/21 15:34	1

Lab Sample ID: MB 620-5231/1-A
Matrix: Water
Analysis Batch: 5452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5231

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.00800		mg/L		11/02/21 13:43	11/09/21 20:27	1
Copper	ND		0.0100		mg/L		11/02/21 13:43	11/09/21 20:27	1
Iron	ND		0.100		mg/L		11/02/21 13:43	11/09/21 20:27	1

Lab Sample ID: LCS 620-5231/2-A
Matrix: Water
Analysis Batch: 5297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5231

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium			2.50	2.640	^3+	mg/L		106	85 - 115		
Copper			2.50	3.432	^3+ *+ ^1+ ^6+ ^+	mg/L		137	85 - 115		

Lab Sample ID: LCS 620-5231/2-A
Matrix: Water
Analysis Batch: 5346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5231

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			2.50	2.600	^3+	mg/L		104	85 - 115		

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 620-5231/2-A
Matrix: Water
Analysis Batch: 5336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	2.50	2.479	^3+	mg/L		99	85 - 115
Copper	2.50	2.923	^3+ ^6+ ^+ *+	mg/L		117	85 - 115
Sulfur	2.50	2.524	^3+	mg/L		101	85 - 115
Iron	2.50	2.440		mg/L		98	85 - 115

Lab Sample ID: LCS 620-5231/2-A
Matrix: Water
Analysis Batch: 5452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	2.50	2.852		mg/L		114	85 - 115
Iron	2.50	2.811		mg/L		112	85 - 115

Lab Sample ID: LCSD 620-5231/3-A
Matrix: Water
Analysis Batch: 5297

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	2.50	2.672	^3+	mg/L		107	85 - 115	1	20
Copper	2.50	3.469	^3+ *+ ^1+ ^6+ ^+	mg/L		139	85 - 115	1	20

Lab Sample ID: LCSD 620-5231/3-A
Matrix: Water
Analysis Batch: 5346

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	2.50	2.739	^3+	mg/L		110	85 - 115	5	20

Lab Sample ID: LCSD 620-5231/3-A
Matrix: Water
Analysis Batch: 5336

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	2.50	2.528	^3+	mg/L		101	85 - 115	2	20
Copper	2.50	2.977	*+ ^3+ ^6+ ^+	mg/L		119	85 - 115	2	20
Sulfur	2.50	2.564	^3+	mg/L		103	85 - 115	2	20
Iron	2.50	2.442		mg/L		98	85 - 115	0	20

Lab Sample ID: LCSD 620-5231/3-A
Matrix: Water
Analysis Batch: 5452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	2.50	2.883		mg/L		115	85 - 115	1	20
Iron	2.50	2.851		mg/L		114	85 - 115	1	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 620-1722-1 MS
Matrix: Water
Analysis Batch: 5346

Client Sample ID: SC1-MW01-11121
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND	^3+	2.50	2.582	^3+	mg/L		103	75 - 125

Lab Sample ID: 620-1722-1 MS
Matrix: Water
Analysis Batch: 5336

Client Sample ID: SC1-MW01-11121
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.0545	^3+	2.50	2.518	^3+	mg/L		99	75 - 125
Sulfur	5.09	^3+ ^2	2.50	7.488	^3+	mg/L		96	75 - 125
Iron	17.3		2.50	19.22	4	mg/L		78	75 - 125

Lab Sample ID: 620-1722-1 MS
Matrix: Water
Analysis Batch: 5452

Client Sample ID: SC1-MW01-11121
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.0264		2.50	2.607		mg/L		103	75 - 125

Lab Sample ID: 620-1722-1 MSD
Matrix: Water
Analysis Batch: 5346

Client Sample ID: SC1-MW01-11121
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND	^3+	2.50	2.640	^3+	mg/L		105	75 - 125	2	20

Lab Sample ID: 620-1722-1 MSD
Matrix: Water
Analysis Batch: 5336

Client Sample ID: SC1-MW01-11121
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.0545	^3+	2.50	2.525	^3+	mg/L		99	75 - 125	0	20
Sulfur	5.09	^3+ ^2	2.50	7.546	^3+	mg/L		98	75 - 125	1	20
Iron	17.3		2.50	19.23	4	mg/L		79	75 - 125	0	20

Lab Sample ID: 620-1722-4 MS
Matrix: Water
Analysis Batch: 5346

Client Sample ID: SC3-MW01-11121
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND	^3+	2.50	2.711	^3+	mg/L		108	75 - 125

Lab Sample ID: 620-1722-4 MS
Matrix: Water
Analysis Batch: 5336

Client Sample ID: SC3-MW01-11121
Prep Type: Total/NA
Prep Batch: 5231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND	^3+	2.50	2.597	^3+	mg/L		104	75 - 125
Copper	ND	*+ ^3+ ^6+ ^+	2.50	3.076	^3+ ^6+ ^+	mg/L		123	75 - 125
Sulfur	2.10	^3+ ^2	2.50	4.781	^3+	mg/L		107	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 620-1722-4 MS — **Client Sample ID: SC3-MW01-11121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5336 — **Prep Batch: 5231**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.931		2.50	3.642		mg/L		108	75 - 125

Lab Sample ID: 620-1722-4 MSD — **Client Sample ID: SC3-MW01-11121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5346 — **Prep Batch: 5231**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND	^3+	2.50	2.728	^3+	mg/L		109	75 - 125	1	20

Lab Sample ID: 620-1722-4 MSD — **Client Sample ID: SC3-MW01-11121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5336 — **Prep Batch: 5231**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND	^3+	2.50	2.559	^3+	mg/L		102	75 - 125	1	20
Copper	ND	*+ ^3+ ^6+ ^+	2.50	3.021	^3+ ^6+ ^+	mg/L		120	75 - 125	2	20
Sulfur	2.10	^3+ ^2	2.50	4.738	^3+	mg/L		105	75 - 125	1	20
Iron	0.931		2.50	3.692		mg/L		110	75 - 125	1	20

Lab Sample ID: 620-1722-1 DU — **Client Sample ID: SC1-MW01-11121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5346 — **Prep Batch: 5231**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	ND	^3+	ND	^3+	mg/L		NC	20

Lab Sample ID: 620-1722-1 DU — **Client Sample ID: SC1-MW01-11121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5336 — **Prep Batch: 5231**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	0.0545	^3+	0.05170	^3+	mg/L		5	20
Sulfur	5.09	^3+ ^2	5.017	^3+	mg/L		2	20
Iron	17.3		16.93		mg/L		2	20

Lab Sample ID: 620-1722-1 DU — **Client Sample ID: SC1-MW01-11121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5452 — **Prep Batch: 5231**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Copper	0.0264		0.02560		mg/L		3	20

QC Association Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Metals

Prep Batch: 5231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1722-1	SC1-MW01-11121	Total/NA	Water	3005A	
620-1722-2	SC1-MW02-11121	Total/NA	Water	3005A	
620-1722-3	SC1-MW03-11121	Total/NA	Water	3005A	
620-1722-4	SC3-MW01-11121	Total/NA	Water	3005A	
620-1722-5	SC3-MW02-11121	Total/NA	Water	3005A	
620-1722-6	SC3-MW03-11121	Total/NA	Water	3005A	
MB 620-5231/1-A	Method Blank	Total/NA	Water	3005A	
LCS 620-5231/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 620-5231/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
620-1722-1 MS	SC1-MW01-11121	Total/NA	Water	3005A	
620-1722-1 MSD	SC1-MW01-11121	Total/NA	Water	3005A	
620-1722-4 MS	SC3-MW01-11121	Total/NA	Water	3005A	
620-1722-4 MSD	SC3-MW01-11121	Total/NA	Water	3005A	
620-1722-1 DU	SC1-MW01-11121	Total/NA	Water	3005A	

Analysis Batch: 5297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1722-6	SC3-MW03-11121	Total/NA	Water	6010D	5231
MB 620-5231/1-A	Method Blank	Total/NA	Water	6010D	5231
LCS 620-5231/2-A	Lab Control Sample	Total/NA	Water	6010D	5231
LCSD 620-5231/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	5231

Analysis Batch: 5336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1722-1	SC1-MW01-11121	Total/NA	Water	6010D	5231
620-1722-2	SC1-MW02-11121	Total/NA	Water	6010D	5231
620-1722-2	SC1-MW02-11121	Total/NA	Water	6010D	5231
620-1722-3	SC1-MW03-11121	Total/NA	Water	6010D	5231
620-1722-4	SC3-MW01-11121	Total/NA	Water	6010D	5231
620-1722-5	SC3-MW02-11121	Total/NA	Water	6010D	5231
620-1722-6	SC3-MW03-11121	Total/NA	Water	6010D	5231
MB 620-5231/1-A	Method Blank	Total/NA	Water	6010D	5231
LCS 620-5231/2-A	Lab Control Sample	Total/NA	Water	6010D	5231
LCSD 620-5231/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	5231
620-1722-1 MS	SC1-MW01-11121	Total/NA	Water	6010D	5231
620-1722-1 MSD	SC1-MW01-11121	Total/NA	Water	6010D	5231
620-1722-4 MS	SC3-MW01-11121	Total/NA	Water	6010D	5231
620-1722-4 MSD	SC3-MW01-11121	Total/NA	Water	6010D	5231
620-1722-1 DU	SC1-MW01-11121	Total/NA	Water	6010D	5231

Analysis Batch: 5346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1722-1	SC1-MW01-11121	Total/NA	Water	6010D	5231
620-1722-2	SC1-MW02-11121	Total/NA	Water	6010D	5231
620-1722-4	SC3-MW01-11121	Total/NA	Water	6010D	5231
620-1722-5	SC3-MW02-11121	Total/NA	Water	6010D	5231
620-1722-6	SC3-MW03-11121	Total/NA	Water	6010D	5231
MB 620-5231/1-A	Method Blank	Total/NA	Water	6010D	5231
LCS 620-5231/2-A	Lab Control Sample	Total/NA	Water	6010D	5231
LCSD 620-5231/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	5231
620-1722-1 MS	SC1-MW01-11121	Total/NA	Water	6010D	5231

Metals (Continued)

Analysis Batch: 5346 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1722-1 MSD	SC1-MW01-11121	Total/NA	Water	6010D	5231
620-1722-4 MS	SC3-MW01-11121	Total/NA	Water	6010D	5231
620-1722-4 MSD	SC3-MW01-11121	Total/NA	Water	6010D	5231
620-1722-1 DU	SC1-MW01-11121	Total/NA	Water	6010D	5231

Analysis Batch: 5452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1722-1	SC1-MW01-11121	Total/NA	Water	6010D	5231
620-1722-2	SC1-MW02-11121	Total/NA	Water	6010D	5231
620-1722-3	SC1-MW03-11121	Total/NA	Water	6010D	5231
620-1722-5	SC3-MW02-11121	Total/NA	Water	6010D	5231
MB 620-5231/1-A	Method Blank	Total/NA	Water	6010D	5231
LCS 620-5231/2-A	Lab Control Sample	Total/NA	Water	6010D	5231
LCSD 620-5231/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	5231
620-1722-1 MS	SC1-MW01-11121	Total/NA	Water	6010D	5231
620-1722-1 DU	SC1-MW01-11121	Total/NA	Water	6010D	5231

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Client Sample ID: SC1-MW01-11121
Date Collected: 11/01/21 12:15
Date Received: 11/01/21 16:57

Lab Sample ID: 620-1722-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5346	11/05/21 05:03	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5336	11/05/21 15:50	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5452	11/09/21 16:03	EDT	ENE

Client Sample ID: SC1-MW02-11121
Date Collected: 11/01/21 11:45
Date Received: 11/01/21 16:57

Lab Sample ID: 620-1722-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5346	11/05/21 05:29	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		10	5336	11/05/21 16:27	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5336	11/05/21 16:33	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5452	11/09/21 16:28	EDT	ENE

Client Sample ID: SC1-MW03-11121
Date Collected: 11/01/21 12:55
Date Received: 11/01/21 16:57

Lab Sample ID: 620-1722-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5336	11/05/21 16:38	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5452	11/09/21 16:33	EDT	ENE

Client Sample ID: SC3-MW01-11121
Date Collected: 11/01/21 14:35
Date Received: 11/01/21 16:57

Lab Sample ID: 620-1722-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5346	11/05/21 05:49	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5336	11/05/21 16:43	EDT	ENE

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Client Sample ID: SC3-MW02-11121

Lab Sample ID: 620-1722-5

Date Collected: 11/01/21 13:30

Matrix: Water

Date Received: 11/01/21 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5346	11/05/21 06:05	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5336	11/05/21 16:59	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5452	11/09/21 16:38	EDT	ENE

Client Sample ID: SC3-MW03-11121

Lab Sample ID: 620-1722-6

Date Collected: 11/01/21 14:05

Matrix: Water

Date Received: 11/01/21 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5346	11/05/21 06:10	EDT	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5297	11/03/21 16:56	CEV	ENE
Total/NA	Prep	3005A			5231	11/02/21 13:43	CEV	ENE
Total/NA	Analysis	6010D		1	5336	11/05/21 17:05	EDT	ENE

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: Mabbett & Associates, Inc. Job ID: 620-1722-1
Project/Site: SC-3 - Carver, MA

Laboratory: Eurofins Environment Testing New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-RI907	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3005A	Water	Arsenic
6010D	3005A	Water	Chromium
6010D	3005A	Water	Copper
6010D	3005A	Water	Iron
6010D	3005A	Water	Sulfur

Method Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	ENE
3005A	Preparation, Total Metals	SW846	ENE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-1722-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-1722-1	SC1-MW01-11121	Water	11/01/21 12:15	11/01/21 16:57
620-1722-2	SC1-MW02-11121	Water	11/01/21 11:45	11/01/21 16:57
620-1722-3	SC1-MW03-11121	Water	11/01/21 12:55	11/01/21 16:57
620-1722-4	SC3-MW01-11121	Water	11/01/21 14:35	11/01/21 16:57
620-1722-5	SC3-MW02-11121	Water	11/01/21 13:30	11/01/21 16:57
620-1722-6	SC3-MW03-11121	Water	11/01/21 14:05	11/01/21 16:57

620-1722 Chain of Custody

413-525-2332
3-525-6405
info@contestlabs.com

http //www contestlabs com

Doc # 381 Rev 1_03242017

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Beth + Ass
Address 105 Central Street, Stoneham
Phone 781-275-6056
Project Name: er Solar
Project Location Carver, MA
Project Number R2021054.000.004
Project Manager Steve Vetere
Con-Test Quote Name/Number 0907623
Invoice Recipient S. Vetere
Sampled By DWM

Requested Turnaround Time
7-Day ☑ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format PDF ☑ EXCEL ☑
Other
CLP Like Data Pkg Required ☐
Email To
Fax To #

Con-Test Work Order#	Client Sample ID / Description	Collection Date/Time	Ending Date/Time	Composite	Solid	Matrix Code	Conc Code	Total Metals	Hexachrome Cr 6									# of Containers	Preservation Code	Container Code
								1	1									1	N	P
	SC1-MW01-11121	11/1/21	1215		X	GW	U	X	X									2	I	P
	SC1-MW02-11121	11/1/21	1145		X	GW	U	X	X									2	I	P
	SC1-MW03-11121	11/1/21	1255		X	GW	U	X	X									2	I	P
	SC3-MW01-11121	11/1/21	1435		X	GW	U	X	X									2	I	P
	SC3-MW02-11121	11/1/21	1330		X	GW	U	X	X									2	I	P
	SC3-MW03-11121	11/1/21	1485		X	GW	U	X	X									2	I	P

ANALYSIS REQUESTED

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments: Total Metals As, Cr, Cu, Se
2.0 + 1 3.0 #6

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above
H - High, M - Medium, L - Low, C - Clean, U - Unknown

Relinquished by (signature)	Date/Time
	11/1/21 1535
Received by (signature)	Date/Time
	11/1/21 1535
Relinquished by (signature)	Date/Time
Received by (signature)	Date/Time
	11/1/21 16:57
Relinquished by (signature)	Date/Time
Received by (signature)	Date/Time

Detection Limit Requirements
MA
Level 2 Data Package
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

con-test ANALYTICAL LABORATORY + EuroFin
Phone 413-525-2332
Fax 413-525-6405
Email info@contestlabs com
39 Spruce Street
East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

Company Name: H+A SS
Address 105 Central St, Stoneham, MA
Phone 781-275-6050
Project Name: + Solar
Project Location Carver, MA
Project Number R2021054.000.004
Project Manager Steve Vetere
Con-Test Quote Name/Number 0902623
Invoice Recipient S. Vetere
Sampled By DWM

Requested Turnaround Time
7-Day ☑ 10-Day ☐
Due Date

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format PDF ☐ EXCEL ☐
Other
CLP Like Data Pkg Required ☐
Email To
Fax To #

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Lab #	Matrix Code	Conc Code	# of Containers	Preservation Code	Container Code	Dissolved Metals Samples: Field Filtered	Dissolved Metals Samples: Lab to Filter	Orthophosphate Samples: Field Filtered	Orthophosphate Samples: Lab to Filter
	SC1-MW01-11121	11/1/21	1215		X	GW	U	1	H	P				
	SC1-MW02-11121	11/1/21	1145		X	GW	U	1	H	P				
	SC1-MW03-11121	11/1/21	1255		X	GW	U	1	H	P				
	SC3-MW01-11121	11/1/21	1435		X	GW	U	1	H	P				
	SC3-MW02-11121	11/1/21	1330		X	GW	U	1	H	P				
	SC3-MW03-11121	11/1/21	1405		X	GW	U	1	H	P				

ANALYSIS REQUESTED
VOCs + Specific MS

Comments
2.0 +1 3.0 #6

Please use the following codes to indicate possible sample concentration within the Conc Code column above
H - High, M - Medium, L - Low, C - Clean, U - Unknown

Relinquished by (signature)	Date/Time
D. Mueto	11/1/21 1535
Received by (signature)	Date/Time
	11/1/21 1535
Relinquished by (signature)	Date/Time
Received by (signature)	Date/Time
	11/1/21 16:57
Relinquished by (signature)	Date/Time
Received by (signature)	Date/Time

Detection Limit Requirements
MA
CT

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
Other:
PWSID #

Level 2 Data Package

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Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc. Job Number: 620-1722-1

Login Number: 1722 **List Source: Eurofins Environment Testing New England**
List Number: 1
Creator: Makhoul, Elie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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TO: Julianne Wooten (Pine Gate Renewables)

FROM: Stephen Vetere, PE, LSP, LEP (Mabbett & Associates)

DATE: December 8, 2022

SUBJECT: Soil, Cranberry, and Groundwater Resampling Results, September 2022
Solar Carver 1 (Tremont Street) and Solar Carver 3 (Rochester Road)
Carver, Massachusetts

Mabbett & Associates, Inc. (Mabbett) completed a soil, cranberry, and groundwater resampling program on behalf of Pine Gate Renewables as part of the continuing evaluation of potential impacts to environmental media from the installation (and subsequent removal) of wood poles treated with chromated copper arsenate (CCA) at two proposed dual-use projects consisting of solar arrays installed into cranberry bogs in Carver, Massachusetts. This resampling effort was designed to verify the findings of an October 2021 investigation, which concluded that there were no significant impacts to the environment from the use of CCA-treated poles approximately 4 months after their installation. This resampling effort was performed as agreed upon by Pine Gate Renewables and the Town of Carver Conservation Commission as part of the ongoing transition from the use of wood poles to support the solar array to an alternative material.

This memorandum provides a description of multimedia sampling activities completed by Mabbett in September 2022 at Solar Carver 1 (SC1), on Tremont Street, and Solar Carver 3 (SC3), on Rochester Road.

EXECUTIVE SUMMARY

The study was a follow up to a similar program completed in October 2021 whereby soil and cranberry samples were collected from several distances adjacent to ten installed poles. Approximately 11 months later, after most of the poles had been removed, Mabbett returned to these same ten former pole locations to duplicate the October 2021 sampling program. Soil and cranberry samples were collected around each pole at distances of 6 inches, 1 foot, 3 feet, and 6 feet from the pole. Soil and cranberry samples were also collected from bogs which were never developed with poles. Soil and cranberry samples were analyzed for the presence of arsenic, chromium, and copper. The groundwater resampling effort involved the collection of groundwater samples from the six shallow monitoring wells (three in each project) installed in October 2021.

Soil analytical results were compared to Massachusetts Contingency Plan (MCP) “reportable” concentrations for Category S-1 soil (the most stringent reporting criteria) and natural background concentrations of metals in soil within the Commonwealth of Massachusetts (MassDEP, 2002). All but two soil samples (86 of 88 collected during the study) contained non-detectable concentrations of arsenic and concentrations of chromium and copper below natural background levels. In one soil sample collected from 3- to 6-inches below ground surface on the Tremont Street project, the concentration of arsenic exceeded the reportable concentration and the concentration of copper exceeded the MassDEP background level for natural soil. The second arsenic detection was in a sample collected from the 0- to 3-inch interval at this same location; in this sample arsenic and copper were detected at concentrations higher than the other samples collected during the study but below MCP reportable concentrations and MassDEP background levels. The sample containing the reportable concentration of arsenic

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was submitted for follow-up microscopic analysis, which identified several fragments of treated wood that are believed to be the source of elevated arsenic and copper in the sample.

Arsenic, chromium, and copper were not detected above laboratory reporting limits in any of the cranberry or groundwater samples.

The dataset presented in this memorandum provides further evidence that the installation of CCA-treated poles into the cranberry bogs at SC1 and SC3 has not resulted in the release of metals to the environment at concentrations which present a significant risk to human health or the environment. The vast majority of soil sampling results were consistent with natural background. Soil impacts above background appear to be attributable primarily to the presence of wood fragments rather than from leaching of metals from the poles into adjacent soils. Therefore, the threat of metals migrating to groundwater and impacting the sole source aquifer is minimal, if any.

The concentration of arsenic detected in one soil sample collected from the Tremont Street site exceeded RCS-1, which represents a 120-day reporting condition under the MCP (310 CMR 40.0315). This finding must be reported to MassDEP within 120 days of the date of this letter and potential risks associated with arsenic in soil must be characterized. To characterize risks, the MCP specifies the use of the average concentration of chemicals-of-concern in soil to develop an exposure point concentration for consideration in a risk assessment. Since the average concentration of arsenic detected in soil samples collected from the Tremont Street site is well below the Method 1 risk assessment standard for arsenic in soil (20 mg/kg), the site conditions do not pose a significant risk under any potential site use, including residential use. Therefore, no further investigation is warranted, no cleanup is required, and the site can be closed with a Permanent Solution at the time of reporting, or shortly thereafter.

SAMPLING OBJECTIVES AND PROGRAM

The primary objective of the resampling program was to evaluate whether, approximately 15 months after installation and 11 months after the initial sampling round, the metals contained in the CCA preservative that was applied to the poles have been released into the surrounding environment. Additional objectives of the resampling program included evaluating the impact of CCA-treated poles on cranberries growing in the bogs and evaluating potential impacts to shallow groundwater from installation of the CCA-treated poles. To achieve these objectives, the following field investigations were completed:

- Soil samples were collected from several locations adjacent to ten different poles (five poles at each project location). Soil samples were collected adjacent to the same ten poles that were sampled during the initial October 2021 study. A total of 80 soil samples were collected adjacent to poles.
- In each project area, four “control” samples were collected from two locations within bogs in which poles were never installed to provide a comparison point with natural conditions in a similar environment that is unimpacted by the use of treated wood poles. The control sample locations were the same as in the October 2021 study. A total of 8 control samples were collected during the study.
- Similar to the October 2021 study, co-located cranberry samples were collected from each of the soil sampling locations described above.
- The depth to groundwater was measured in each well and the elevation of the groundwater table calculated to verify the interpretation of groundwater flow direction made in October 2021.
- Groundwater samples were collected from each of the six monitoring wells installed in October 2021.

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The ensuing sections provide a discussion of the sampling procedures, laboratory analyses, sampling results, and other environmental data collected during the program.

SOIL SAMPLING PROCEDURES

The soil sampling procedures employed during the September 2022 event were the same as those used in October 2021. The former locations of the ten poles from which samples were collected in 2021 were located in the field using Global Positioning System (GPS) and field notes taken during the initial study. The former location of each pole was identified by the presence of backfill material in the hole from which the pole was removed.

A series of eight soil samples was collected from the immediate vicinity of each of the ten former pole locations. Soil samples were collected from distances of 6 inches, 1 foot, 3 feet, and 6 feet away from each pole. At each distance, a sample was collected from 0- to 3-inches below ground surface and a second sample was collected from 3- to 6-inches below ground surface.

Each soil sample submitted for laboratory analysis consisted of four increments of soil obtained at a specific distance from the former pole location. The four subsample increments were collected from four evenly-spaced locations along the circumference of a circle centered on the former pole location (0°, 90°, 180°, 270°) to create a sample that was representative of the entire volume of soil present at a specific distance from the former pole. In the figure below, the locations of the four subsamples collected from 6 inches and 1 foot of the former pole location are shown (note that subsamples are collected from two depths at each location). The four subsamples collected from the same distance and depth were combined into a single soil sample to represent soils at that depth and distance from the former pole. Although not shown on the figure, this same protocol was followed to collect samples from the 3-foot and 6-foot distance around each former pole location.

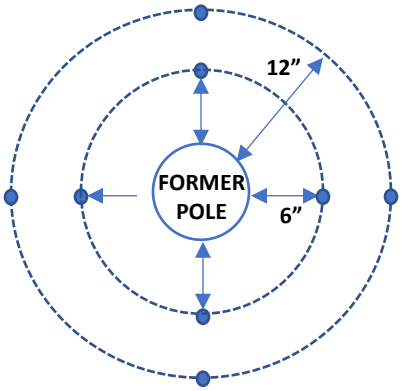


Figure 1. Typical soil sampling sketch.

In each of the four subsample locations, soil samples were collected using a hand coring tool or spaded shovel to achieve the desired sampling depths. The cranberry vines at the sampling location were cleared by hand to allow access to the upper layer of soil in the bog. Then, a soil subsample was collected from 0- to 3-inches below ground surface and placed into a stainless steel bowl. At that same location, the hole was advanced another 3 inches deeper and a soil subsample was collected between 3- and 6-inches below ground surface and placed into a different stainless steel bowl. This process was repeated at each of the four locations around the former pole location. After the four subsamples were collected from each depth into separate bowls, each sample was homogenized by mixing to combine the subsamples into a uniform sample. The 0-3 inch sample and the 3-6 inch sample were then transferred into separate glass jars and placed on ice.

Each soil sample was stored in a cooler on ice and submitted under appropriate chain-of-custody procedures to Pace Analytical Laboratories of East Longmeadow, Massachusetts (Pace) for laboratory analysis of total arsenic, total chromium, and total copper by EPA Method 6010. A summary of soil analytical results is provided in the attached Table 1.

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CRANBERRY SAMPLING PROCEDURES

To evaluate potential impacts to cranberries growing in the bogs from the use of CCA-treated poles, co-located cranberry samples were collected from each of the soil sampling locations described in the preceding section. The cranberries for each sample were hand collected, using powder free nitrile gloves, and placed into clear plastic polyethylene bags.

Each cranberry sample collected proximate to the former locations of CCA-treated poles was stored in a cooler on ice and submitted under appropriate chain-of-custody procedures to Eurofins Environment Testing New England of North Kingstown, Rhode Island (Eurofins) for laboratory analysis of total arsenic, total chromium, and total copper by EPA Method 6010D. A summary of cranberry sampling results is provided in the attached Table 2.

GROUNDWATER SAMPLING PROCEDURES

Prior to initiating groundwater sample collection, the depth to groundwater in each monitoring well was measured utilizing an electronic water level probe capable of measuring the depth to water to the nearest hundredth of a foot. Groundwater sampling was performed on September 1, 2022 utilizing a peristaltic pump, disposable tubing, and USEPA-approved low flow/low stress sampling methodologies. Prior to sample collection, purged groundwater was monitored using a Yellow Springs Instrument (YSI™) handheld multi-parameter sonde equipped with a YSI™ sensor and flow-through cell to measure a series of field indicator parameters including: pH, conductivity, temperature, ORP, dissolved oxygen (DO), and turbidity. Readings for these parameters, along with depth to water, were taken every 5 minutes during purging. Following an initial purge period, measurements for these field parameters were collected and recorded in field log sheets.

Once groundwater parameters stabilized for three consecutive readings in accordance with the USEPA's 2017 Region 1 Low Flow/Low Stress Purging and Sampling Procedure, water samples were collected directly from the down-well tubing. The table below provides the field parameter measurements recorded immediately prior to collecting the groundwater samples from each well.

Well	DTW	Temp.	DO	ORP	pH	Conductivity	Turbidity
	ft bmp	°C	mg/L	mV	units	µS/cm²	NTU
SC1-MW01	6.32	20.3	0.29	223.3	4.92	41.5	8.10
SC1-MW02	5.78	20.3	0.89	214.6	4.44	71.8	12.0
SC1-MW03	6.35	20.0	0.86	198.2	4.88	75.3	12.4
SC3-MW01	3.44	20.7	0.69	211.3	3.96	128.8	8.06
SC3-MW02	4.90	18.8	1.90	150.1	5.46	79.9	16.4
SC3-MW03	8.72	17.4	10.09	252.5	5.11	67.7	9.76

Notes:
DTW = depth to water
ft bmp = feet below measuring point (measuring point is PVC well casing)
mV = millivolts
NTU = nephelometric turbidity units

Groundwater samples were placed into laboratory-supplied glassware, stored in a cooler on ice, and submitted under appropriate chain-of-custody procedures to Eurofins for analysis of total arsenic, chromium, and copper by EPA Method 6010.

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SUMMARY OF ANALYTICAL RESULTS

In the attached Table 1, the soil analytical results from SC1 and SC3 are compared to the Massachusetts Contingency Plan (MCP) Reportable Concentrations for Category S-1 soil (RCS-1) and the background concentrations in "natural" soil published by MassDEP in Table 1 of the 2002 *Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil*.

- RCS-1 is the most stringent reporting category for soils in Massachusetts, intended to identify potential releases to soil in areas within 500 feet of a residential dwelling, a residentially-zoned property, school, playground, recreational area, or park. RCS-1 also applies to soils within the geographic boundaries of a groundwater resource area.
- The MassDEP soil background levels are considered representative of natural background levels of metals present in soils throughout Massachusetts.

As shown in Table 1, all but two samples (86 of 88 collected during the study) contained non-detectable concentrations of arsenic and concentrations of copper below natural background levels. In one sample collected from 3- to 6-inches below ground surface on the Tremont Street project, the concentration of arsenic exceeded RCS-1 and the concentration of copper exceeded the MassDEP background level for natural soil. The second arsenic detection was in a sample collected from the 0- to 3-inch interval at this same location; in this sample arsenic and copper were detected at concentrations higher than the other samples collected during the study but below MCP reportable concentrations and MassDEP background levels.

To further evaluate the potential source of arsenic and copper in this sample, it was submitted to Microvision Labs, Inc. of Chelmsford, Massachusetts for microscopic analysis to determine whether the sample contained wood fragments that could be the source of arsenic and copper in the sample. Six wood fragments were identified in the sample: all six contained detectable concentrations of copper but only two contained detectable concentrations of chromium and arsenic. The microscopic analysis of the sample concluded that the wood fragments identified were likely pieces of wood from a treated utility pole.

The attached Table 2 provides the analytical results for cranberry samples collected from SC1 and SC3. There was no arsenic, chromium, or copper detected above laboratory detection limits in any of the cranberry samples.

The attached Table 3 provides the analytical results for groundwater samples collected from the six monitoring wells. The analytical results are compared against the Massachusetts Maximum Contaminant Levels (MMCLs), which are the Commonwealth's drinking water standards. There were no metals detected above laboratory reporting limits in any of the groundwater samples. Laboratory reporting limits were below MMCLs, providing adequate sensitivity to allow for comparison with the drinking water standards.

Based on the elevation of the groundwater monitoring wells and the measured depth to water at each well, overburden groundwater flow at SC-1 is inferred to be toward the southwest, and overburden groundwater flow at SC-3 is inferred to be toward the southeast. This interpretation corroborates the direction of groundwater flow reported by the United States Geological Survey (USGS) in published reports and is consistent with observations made during the October 2021 sampling event.

SUMMARY/CONCLUSIONS

The dataset presented in this memorandum provides further evidence that the installation (and subsequent removal) of CCA-treated poles into the cranberry bogs at SC1 and SC3 has not resulted in the release of metals to the environment at concentrations which present a significant risk to human health or the environment. There appear to be no impacts to cranberries or groundwater from the installation of treated poles. Consistent with

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observations made during the October 2021 sampling event, impacts to soil appear to be limited to a small area within inches of the (former) pole location.

The vast majority of soil sampling results were consistent with natural background. Soil impacts above background appear to be attributable primarily to the presence of wood fragments rather than from leaching of metals from the poles into adjacent soils. Therefore, the threat of metals migrating to groundwater and impacting the sole source aquifer is minimal, if any.

RECOMMENDATIONS

The concentration of arsenic detected in one sample collected from the Tremont Street project exceeded RCS-1, which represents a 120-day reporting condition under the MCP (310 CMR 40.0315). This finding must be reported to MassDEP within 120 days of the date of this letter.

Pine Gate may then use the existing sampling data to demonstrate that arsenic concentrations in soil and groundwater on the Tremont Street project do not present a significant risk to human health or the environment. To characterize risks, the MCP specifies the use of the average concentration of chemicals-of-concern in soil to develop an exposure point concentration for consideration in a risk assessment. Since the average concentration of arsenic detected in soil samples collected from the Tremont Street project is well below the Method 1 risk assessment standard for arsenic in soil (20 mg/kg), the site conditions do not pose a significant risk under any potential site use, including residential use. Therefore, no further investigation is warranted, cleanup is not required, and the site can be closed with a Permanent Solution at the time of reporting, or shortly thereafter.

Respectfully submitted,

MABBETT & ASSOCIATES, INC.

Prepared by:



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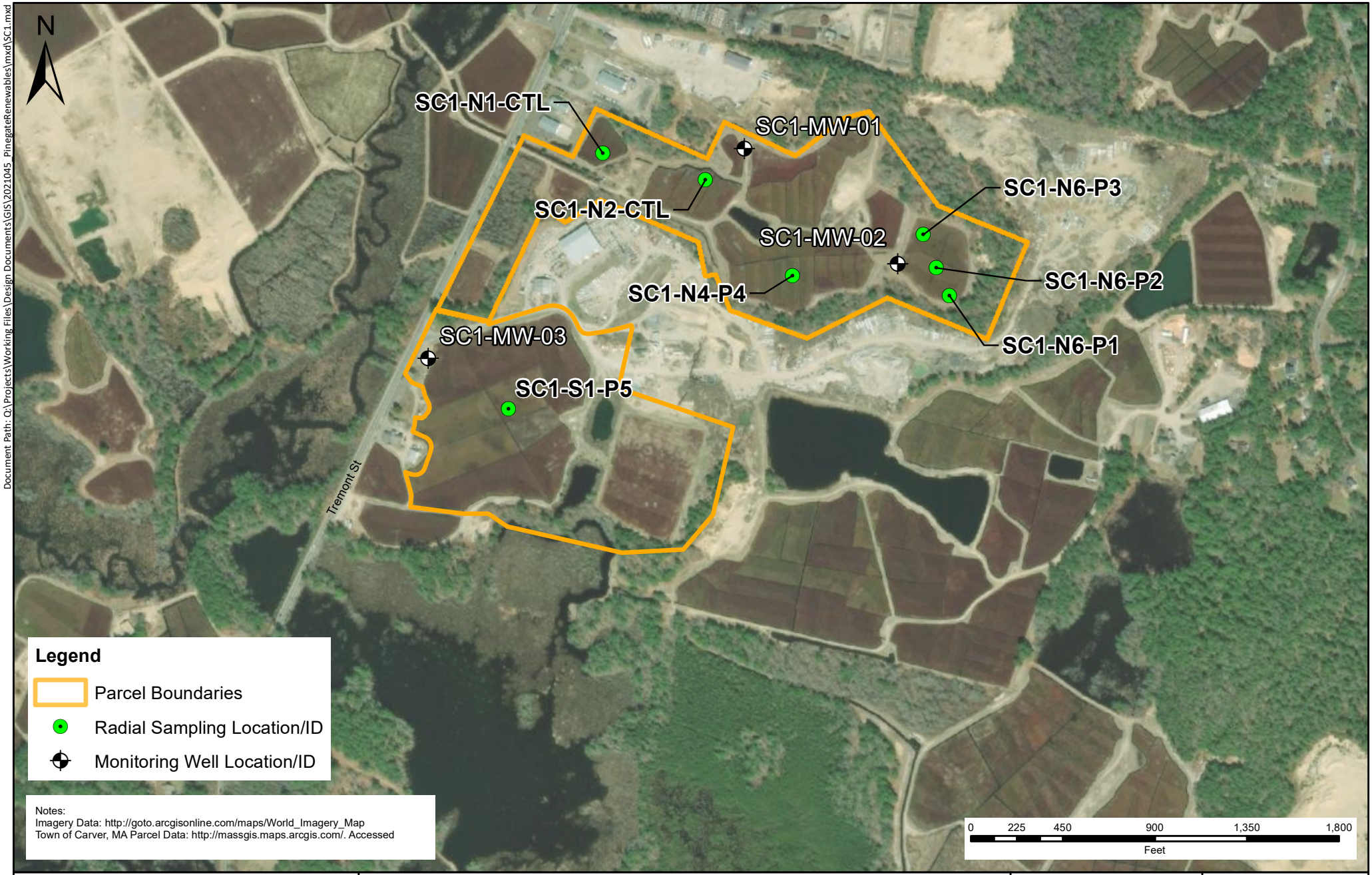
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ATTACHMENT A

Sample Location Figures

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FIGURE 2
Environmental Sampling Locations
SC-1 Tremont

Drawn: DWM

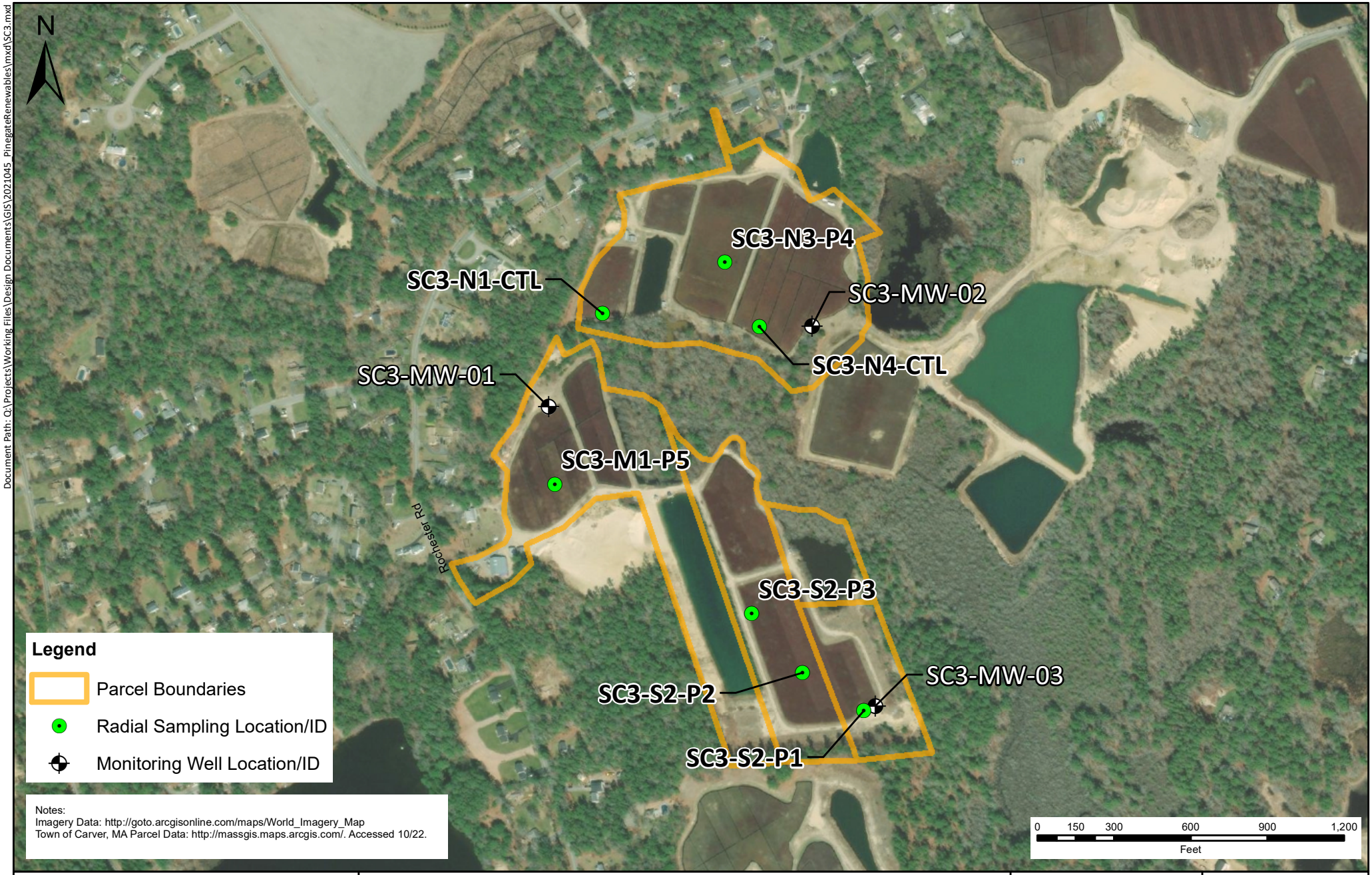
Approved: SAV

Projection: NAD83 2011 -
MA StatePlane FIPS 2001 (US Feet)

Project No.
R2021054.001.004

Date: 11/15/2022

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FIGURE 3
Environmental Sampling Locations
SC-3 Rochester

Drawn: DWM | Approved: SAV

Projection: NAD83 2011 -
MA StatePlane FIPS 2001 (US Feet)

Project No.
R2021054.001.004 | Date: 11/15/2022

ATTACHMENT B

Analytical Summary Tables

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Table 1
Summary of Soil Analytical Results
Pine Gate Renewables
Carver, Massachusetts

Analyte:			Arsenic	Chromium	Copper					
MCP Reportable Concentration for Category S-1:			*20*	*100*	*1000*					
MassDEP Background Levels in Natural Soil:			*20*	*30*	*40*					
SAMPLE ID	**SAMPLE DATE**	**MEDIUM**				**PROJECT**	**BOG**	**POLE**	**DISTANCE (in)**	**DEPTH (in)**
Surficial Soil Samples Collected Adjacent to CCA-Treated Poles in SC1 (Tremont)										
SC1-N6-SO-P100-0003	6-Sep-22	Soil	<4.2	**3.7**	**10**	SC1	SC1-N6	P1	6	0-3
SC1-N6-SO-P100-0306	6-Sep-22	Soil	<3.8	**3.1**	**4.7**	SC1	SC1-N6	P1	6	3-6
SC1-N6-SO-P101-0003	6-Sep-22	Soil	<4.1	**2.2**	**6.0**	SC1	SC1-N6	P1	12	0-3
SC1-N6-SO-P101-0306	6-Sep-22	Soil	<3.7	**2.5**	**4.9**	SC1	SC1-N6	P1	12	3-6
SC1-N6-SO-P103-0003	6-Sep-22	Soil	<4.0	**2.0**	**7.7**	SC1	SC1-N6	P1	36	0-3
SC1-N6-SO-P103-0306	6-Sep-22	Soil	<3.9	**2.5**	**5.0**	SC1	SC1-N6	P1	36	3-6
SC1-N6-SO-P106-0003	6-Sep-22	Soil	<4.7	**2.7**	**9.4**	SC1	SC1-N6	P1	72	0-3
SC1-N6-SO-P106-0306	6-Sep-22	Soil	<3.9	**2.4**	**6.2**	SC1	SC1-N6	P1	72	3-6
SC1-N6-SO-P200-0003	6-Sep-22	Soil	<4.7	**2.0**	**12**	SC1	SC1-N6	P2	6	0-3
SC1-N6-SO-P200-0306	6-Sep-22	Soil	<4.9	**1.7**	**7.7**	SC1	SC1-N6	P2	6	3-6
SC1-N6-SO-P201-0003	6-Sep-22	Soil	<4.7	**1.2**	**5.8**	SC1	SC1-N6	P2	12	0-3
SC1-N6-SO-P201-0306	6-Sep-22	Soil	<5.3	**3.0**	**12**	SC1	SC1-N6	P2	12	3-6
SC1-N6-SO-P203-0003	6-Sep-22	Soil	<4.6	**2.6**	**11**	SC1	SC1-N6	P2	36	0-3
SC1-N6-SO-P203-0306	6-Sep-22	Soil	<5.3	**2.6**	**9.5**	SC1	SC1-N6	P2	36	3-6
SC1-N6-SO-P206-0003	6-Sep-22	Soil	<5.7	**3.3**	**13**	SC1	SC1-N6	P2	72	0-3
SC1-N6-SO-P206-0306	6-Sep-22	Soil	<4.4	**2.2**	**10**	SC1	SC1-N6	P2	72	3-6
SC1-N6-SO-P300-0003	6-Sep-22	Soil	<5.1	**2.3**	**9.5**	SC1	SC1-N6	P3	6	0-3
SC1-N6-SO-P300-0306	6-Sep-22	Soil	<4.4	**1.4**	**5.7**	SC1	SC1-N6	P3	6	3-6
SC1-N6-SO-P301-0003	6-Sep-22	Soil	<5.3	**2.4**	**12**	SC1	SC1-N6	P3	12	0-3
SC1-N6-SO-P301-0306	6-Sep-22	Soil	<4.4	**3.6**	**4.9**	SC1	SC1-N6	P3	12	3-6
SC1-N6-SO-P303-0003	6-Sep-22	Soil	<5.1	**2.6**	**8.8**	SC1	SC1-N6	P3	36	0-3
SC1-N6-SO-P303-0306	6-Sep-22	Soil	<4.7	**2.4**	**8.2**	SC1	SC1-N6	P3	36	3-6
SC1-N6-SO-P306-0003	6-Sep-22	Soil	<4.3	**2.3**	**6.0**	SC1	SC1-N6	P3	72	0-3
SC1-N6-SO-P306-0306	6-Sep-22	Soil	<4.4	**1.9**	**5.3**	SC1	SC1-N6	P3	72	3-6
SC1-N4-SO-P400-0003	7-Sep-22	Soil	<4.4	**2.6**	**5.5**	SC1	SC1-N4	P4	6	0-3
SC1-N4-SO-P400-0306	7-Sep-22	Soil	<4.1	**3.7**	**7.4**	SC1	SC1-N4	P4	6	3-6
SC1-N4-SO-P401-0003	7-Sep-22	Soil	<5.6	**4.0**	**12**	SC1	SC1-N4	P4	12	0-3
SC1-N4-SO-P401-0306	7-Sep-22	Soil	<4.3	**2.5**	**6.3**	SC1	SC1-N4	P4	12	3-6
SC1-N4-SO-P403-0003	7-Sep-22	Soil	<4.7	**3.2**	**10**	SC1	SC1-N4	P4	36	0-3
SC1-N4-SO-P403-0306	7-Sep-22	Soil	<3.9	**2.7**	**4.7**	SC1	SC1-N4	P4	36	3-6
SC1-N4-SO-P406-0003	7-Sep-22	Soil	<6.4	**3.8**	**9.1**	SC1	SC1-N4	P4	72	0-3
SC1-N4-SO-P406-0306	7-Sep-22	Soil	<4.7	**4.0**	**4.6**	SC1	SC1-N4	P4	72	3-6

Table 1
Summary of Soil Analytical Results
Pine Gate Renewables
Carver, Massachusetts

		Analyte:	Arsenic	Chromium	Copper					
MCP Reportable Concentration for Category S-1:			*20*	*100*	*1000*					
MassDEP Background Levels in Natural Soil:			*20*	*30*	*40*					
SAMPLE ID	**SAMPLE DATE**	**MEDIUM**				**PROJECT**	**BOG**	**POLE**	**DISTANCE (in)**	**DEPTH (in)**
SC1-S1-SO-P500-0003	6-Sep-22	Soil	**14**	**9.6**	**21**	SC1	SC1-S1	P5	6	0-3
SC1-S1-SO-P500-0306	6-Sep-22	Soil	**24**	**14**	***44***	SC1	SC1-S1	P5	6	3-6
SC1-S1-SO-P501-0003	6-Sep-22	Soil	<5.3	**3.7**	**9.8**	SC1	SC1-S1	P5	12	0-3
SC1-S1-SO-P501-0306	6-Sep-22	Soil	<4.6	**3.2**	**5.8**	SC1	SC1-S1	P5	12	3-6
SC1-S1-SO-P503-0003	6-Sep-22	Soil	<4.7	**2.9**	**5.3**	SC1	SC1-S1	P5	36	0-3
SC1-S1-SO-P503-0306	6-Sep-22	Soil	<4.4	**3.3**	**6.7**	SC1	SC1-S1	P5	36	3-6
SC1-S1-SO-P506-0003	6-Sep-22	Soil	<4.9	**3.2**	**4.3**	SC1	SC1-S1	P5	72	0-3
SC1-S1-SO-P506-0306	6-Sep-22	Soil	<5.0	**3.4**	**7.4**	SC1	SC1-S1	P5	72	3-6
Surficial Soil Samples Collected Adjacent to CCA-Treated Poles in SC3 (Rochester)										
SC3-S2-SO-P100-0003	7-Sep-22	Soil	<3.9	**5.5**	**2.9**	SC3	SC3-S2	P1	6	0-3
SC3-S2-SO-P100-0306	7-Sep-22	Soil	<3.6	**5.1**	**2.7**	SC3	SC3-S2	P1	6	3-6
SC3-S2-SO-P101-0003	7-Sep-22	Soil	<3.9	**5.0**	**3.3**	SC3	SC3-S2	P1	12	0-3
SC3-S2-SO-P101-0306	7-Sep-22	Soil	<3.6	**5.1**	**3.2**	SC3	SC3-S2	P1	12	3-6
SC3-S2-SO-P103-0003	7-Sep-22	Soil	<3.7	**4.0**	**2.9**	SC3	SC3-S2	P1	36	0-3
SC3-S2-SO-P103-0306	7-Sep-22	Soil	<3.7	**5.2**	**3.2**	SC3	SC3-S2	P1	36	3-6
SC3-S2-SO-P106-0003	7-Sep-22	Soil	<3.7	**4.7**	**2.7**	SC3	SC3-S2	P1	72	0-3
SC3-S2-SO-P106-0306	7-Sep-22	Soil	<3.7	**5.2**	**2.9**	SC3	SC3-S2	P1	72	3-6
SC3-S2-SO-P200-0003	7-Sep-22	Soil	<3.7	**4.9**	**2.7**	SC3	SC3-S2	P2	6	0-3
SC3-S2-SO-P200-0306	7-Sep-22	Soil	<3.9	**5.5**	**3.2**	SC3	SC3-S2	P2	6	3-6
SC3-S2-SO-P201-0003	7-Sep-22	Soil	<3.8	**5.1**	**2.8**	SC3	SC3-S2	P2	12	0-3
SC3-S2-SO-P201-0306	7-Sep-22	Soil	<3.9	**4.9**	**2.8**	SC3	SC3-S2	P2	12	3-6
SC3-S2-SO-P203-0003	7-Sep-22	Soil	<4.2	**4.8**	**3.1**	SC3	SC3-S2	P2	36	0-3
SC3-S2-SO-P203-0306	7-Sep-22	Soil	<4.0	**5.2**	**3.0**	SC3	SC3-S2	P2	36	3-6
SC3-S2-SO-P206-0003	7-Sep-22	Soil	<3.8	**5.2**	**2.8**	SC3	SC3-S2	P2	72	0-3
SC3-S2-SO-P206-0306	7-Sep-22	Soil	<3.8	**4.6**	**2.6**	SC3	SC3-S2	P2	72	3-6
SC3-S2-SO-P300-0003	7-Sep-22	Soil	<3.9	**4.1**	**2.1**	SC3	SC3-S2	P3	6	0-3
SC3-S2-SO-P300-0306	7-Sep-22	Soil	<3.7	**5.1**	**2.4**	SC3	SC3-S2	P3	6	3-6
SC3-S2-SO-P301-0003	7-Sep-22	Soil	<3.7	**3.9**	**2.0**	SC3	SC3-S2	P3	12	0-3
SC3-S2-SO-P301-0306	7-Sep-22	Soil	<3.7	**3.4**	**1.9**	SC3	SC3-S2	P3	12	3-6
SC3-S2-SO-P303-0003	7-Sep-22	Soil	<3.8	**3.9**	**2.2**	SC3	SC3-S2	P3	36	0-3
SC3-S2-SO-P303-0306	7-Sep-22	Soil	<3.7	**3.5**	**2.1**	SC3	SC3-S2	P3	36	3-6
SC3-S2-SO-P306-0003	7-Sep-22	Soil	<3.9	**3.4**	**2.0**	SC3	SC3-S2	P3	72	0-3
SC3-S2-SO-P306-0306	7-Sep-22	Soil	<3.6	**4.0**	**2.5**	SC3	SC3-S2	P3	72	3-6

Table 1
Summary of Soil Analytical Results
Pine Gate Renewables
Carver, Massachusetts

Analyte:			Arsenic	Chromium	Copper					
MCP Reportable Concentration for Category S-1:			***20***	***100***	***1000***					
MassDEP Background Levels in Natural Soil:			***20***	***30***	***40***					
SAMPLE ID	**SAMPLE DATE**	**MEDIUM**				**PROJECT**	**BOG**	**POLE**	**DISTANCE (in)**	**DEPTH (in)**
SC3-N3-SO-P400-0003	7-Sep-22	Soil	<4.2	**3.9**	**22**	SC3	SC3-N3	P4	6	0-3
SC3-N3-SO-P400-0306	7-Sep-22	Soil	<3.7	**3.3**	**8.0**	SC3	SC3-N3	P4	6	3-6
SC3-N3-SO-P401-0003	7-Sep-22	Soil	<4.0	**3.5**	**15**	SC3	SC3-N3	P4	12	0-3
SC3-N3-SO-P401-0306	7-Sep-22	Soil	<3.7	**4.5**	**8.6**	SC3	SC3-N3	P4	12	3-6
SC3-N3-SO-P403-0003	7-Sep-22	Soil	<4.0	**3.6**	**19**	SC3	SC3-N3	P4	36	0-3
SC3-N3-SO-P403-0306	7-Sep-22	Soil	<3.7	**3.7**	**7.3**	SC3	SC3-N3	P4	36	3-6
SC3-N3-SO-P406-0003	7-Sep-22	Soil	<4.0	**3.2**	**15**	SC3	SC3-N3	P4	72	0-3
SC3-N3-SO-P406-0306	7-Sep-22	Soil	<3.7	**3.6**	**8.1**	SC3	SC3-N3	P4	72	3-6
SC3-M1-SO-P500-0003	7-Sep-22	Soil	<5.8	**4.0**	**2.7**	SC3	SC3-M1	P5	6	0-3
SC3-M1-SO-P500-0306	7-Sep-22	Soil	<5.5	**2.7**	**2.6**	SC3	SC3-M1	P5	6	3-6
SC3-M1-SO-P501-0003	7-Sep-22	Soil	<4.4	**2.8**	**1.9**	SC3	SC3-M1	P5	12	0-3
SC3-M1-SO-P501-0306	7-Sep-22	Soil	<4.4	**2.5**	**1.9**	SC3	SC3-M1	P5	12	3-6
SC3-M1-SO-P503-0003	7-Sep-22	Soil	<5.7	**2.6**	**2.1**	SC3	SC3-M1	P5	36	0-3
SC3-M1-SO-P503-0306	7-Sep-22	Soil	<4.3	**2.7**	**1.9**	SC3	SC3-M1	P5	36	3-6
SC3-M1-SO-P506-0003	7-Sep-22	Soil	<4.7	**2.1**	**1.7**	SC3	SC3-M1	P5	72	0-3
SC3-M1-SO-P506-0306	7-Sep-22	Soil	<4.4	**3.0**	**2.1**	SC3	SC3-M1	P5	72	3-6
Control Samples (collected from bogs never developed with poles)										
SC1-N1-SO-CTLU-0003	6-Sep-22	Soil	<4.2	**2.2**	**3.7**	SC1	SC1-N1	None	--	0-3
SC1-N1-SO-CTLU-0306	6-Sep-22	Soil	<4.3	**2.6**	**3.0**	SC1	SC1-N1	None	--	3-6
SC1-N2-SO-CTLU-0003	6-Sep-22	Soil	<5.3	**2.5**	**2.4**	SC1	SC1-N2	None	--	0-3
SC1-N2-SO-CTLU-0306	6-Sep-22	Soil	<3.8	**2.8**	**2.6**	SC1	SC1-N2	None	--	3-6
SC3-N1-SO-CTLP-0003	7-Sep-22	Soil	<3.4	**2.5**	**12**	SC3	SC3-N1	None	--	0-3
SC3-N1-SO-CTLP-0306	7-Sep-22	Soil	<3.5	**2.3**	**3.8**	SC3	SC3-N1	None	--	3-6
SC3-N4-SO-CTLP-0003	7-Sep-22	Soil	<3.7	**2.1**	**7.6**	SC3	SC3-N4	None	--	0-3
SC3-N4-SO-CTLP-0306	7-Sep-22	Soil	<3.7	**3.5**	**15**	SC3	SC3-N4	None	--	3-6

Note:
1. All units in mg/kg dry weight.

Table 2
Summary of Cranberry Analytical Results
Pine Gate Renewables
Carver, Massachusetts

SAMPLE ID	SAMPLE DATE	MEDIUM	ARSENIC (mg/kg)	CHROMIUM (mg/kg)	COPPER (mg/kg)	PROJECT	BOG	POLE	DISTANCE (in)
Cranberry Samples Collected Adjacent to CCA-Treated Poles in SC1 (Tremont)									
SC1-N6-FR-P100	6-Sep-22	Fruit	<5.53	<2.76	<13.8	SC1	N6	P1	6
SC1-N6-FR-P101	6-Sep-22	Fruit	<8.75	<4.37	<21.9	SC1	N6	P1	12
SC1-N6-FR-P103	6-Sep-22	Fruit	<7.24	<3.62	<18.1	SC1	N6	P1	36
SC1-N6-FR-P106	6-Sep-22	Fruit	<8.51	<4.26	<21.3	SC1	N6	P1	72
SC1-N6-FR-P200	6-Sep-22	Fruit	<6.48	<3.24	<16.2	SC1	N6	P2	6
SC1-N6-FR-P201	6-Sep-22	Fruit	<7.12	<3.56	<17.8	SC1	N6	P2	12
SC1-N6-FR-P203	6-Sep-22	Fruit	<6.07	<3.04	<15.2	SC1	N6	P2	36
SC1-N6-FR-P206	6-Sep-22	Fruit	<5.97	<2.98	<14.9	SC1	N6	P2	72
SC1-N6-FR-P300	6-Sep-22	Fruit	<8.09	<4.05	<20.2	SC1	N6	P3	6
SC1-N6-FR-P301	6-Sep-22	Fruit	<8.35	<4.17	<20.9	SC1	N6	P3	12
SC1-N6-FR-P303	6-Sep-22	Fruit	<6.25	<3.12	<15.6	SC1	N6	P3	36
SC1-N6-FR-P306	6-Sep-22	Fruit	<8.96	<4.48	<22.4	SC1	N6	P3	72
SC1-N4-FR-P400	7-Sep-22	Fruit	<9.60	<4.80	<24.0	SC1	N4	P4	6
SC1-N4-FR-P401	7-Sep-22	Fruit	<5.98	<2.99	<15.0	SC1	N4	P4	12
SC1-N4-FR-P403	7-Sep-22	Fruit	<6.05	<3.02	<15.1	SC1	N4	P4	36
SC1-N4-FR-P406	7-Sep-22	Fruit	<6.31	<3.16	<15.8	SC1	N4	P4	72
SC1-S1-FR-P500	6-Sep-22	Fruit	<8.13	<4.07	<20.3	SC1	S1	P5	6
SC1-S1-FR-P501	7-Sep-22	Fruit	<5.73	<2.87	<14.3	SC1	S1	P5	12
SC1-S1-FR-P503	6-Sep-22	Fruit	<6.67	<3.34	<16.7	SC1	S1	P5	36
SC1-S1-FR-P506	6-Sep-22	Fruit	<7.83	<3.91	<19.6	SC1	S1	P5	72
Cranberry Samples Collected Adjacent to CCA-Treated Poles in SC3 (Rochester)									
SC3-S2-FR-P100	7-Sep-22	Fruit	<6.40	<3.20	<16.0	SC3	S2	P1	6
SC3-S2-FR-P101	7-Sep-22	Fruit	<6.52	<3.26	<16.3	SC3	S2	P1	12
SC3-S2-FR-P103	7-Sep-22	Fruit	<8.30	<4.15	<20.8	SC3	S2	P1	36
SC3-S2-FR-P106	7-Sep-22	Fruit	<8.11	<4.05	<20.3	SC3	S2	P1	72
SC3-S2-FR-P200	7-Sep-22	Fruit	<8.00	<4.00	<20.0	SC3	S2	P2	6
SC3-S2-FR-P201	7-Sep-22	Fruit	<5.95	<2.97	<14.9	SC3	S2	P2	12
SC3-S2-FR-P203	7-Sep-22	Fruit	<5.16	<2.58	<12.9	SC3	S2	P2	36
SC3-S2-FR-P206	7-Sep-22	Fruit	<5.45	<2.73	<13.6	SC3	S2	P2	72
SC3-S2-FR-P300	7-Sep-22	Fruit	<6.61	<3.31	<16.5	SC3	S2	P3	6
SC3-S2-FR-P301	7-Sep-22	Fruit	<7.16	<3.58	<17.9	SC3	S2	P3	12
SC3-S2-FR-P303	7-Sep-22	Fruit	<6.38	<3.19	<16.0	SC3	S2	P3	36
SC3-S2-FR-P306	7-Sep-22	Fruit	<7.18	<3.59	<17.9	SC3	S2	P3	72
SC3-N3-FR-P400	7-Sep-22	Fruit	<8.45	<4.22	<21.1	SC3	N3	P4	6
SC3-N3-FR-P401	7-Sep-22	Fruit	<4.87	<2.44	<12.2	SC3	N3	P4	12

Table 2
Summary of Cranberry Analytical Results
Pine Gate Renewables
Carver, Massachusetts

SAMPLE ID	SAMPLE DATE	MEDIUM	ARSENIC (mg/kg)	CHROMIUM (mg/kg)	COPPER (mg/kg)	PROJECT	BOG	POLE	DISTANCE (in)
SC3-N3-FR-P403	7-Sep-22	Fruit	<5.41	<2.71	<13.5	SC3	N3	P4	36
SC3-N3-FR-P406	7-Sep-22	Fruit	<4.99	<2.49	<12.5	SC3	N3	P4	72
SC3-M1-FR-P500	7-Sep-22	Fruit	<6.41	<3.21	<16.0	SC3	M1	P5	6
SC3-M1-FR-P501	7-Sep-22	Fruit	<5.40	<2.70	<13.5	SC3	M1	P5	12
SC3-M1-FR-P503	7-Sep-22	Fruit	<8.40	<4.20	<21.0	SC3	M1	P5	36
SC3-M1-FR-P506	7-Sep-22	Fruit	<7.68	<3.84	<19.2	SC3	M1	P5	72
Control Samples (collected from bogs never developed with poles)									
SC1-N1-FR-CTLU	6-Sep-22	Fruit	<7.47	<3.73	<18.7	SC1	N1	None	--
SC1-N2-FR-CTLU	6-Sep-22	Fruit	<5.01	<2.50	<12.5	SC1	N2	None	--
SC3-N1-FR-CTLP	7-Sep-22	Fruit	<4.62	<2.31	<11.5	SC3	N1	None	--
SC3-N4-FR-CTLP	7-Sep-22	Fruit	<7.22	<3.61	<18.0	SC3	N4	None	--

Note:
1. All units in mg/kg dry weight.

Table 3
Summary of Groundwater Analytical Results
Pine Gate Renewables
Carver, Massachusetts

SAMPLE ID	DATE SAMPLED	MATRIX	ARSENIC (mg/L)	CHROMIUM (mg/L)	COPPER (mg/L)
Massachusetts Drinking Water Standards:			**0.010**	**0.1**	**1.4**
SC1-MW-01-090122	1-Sep-22	Aqueous	<0.004	<0.005	<0.005
SC1-MW-02-090122	1-Sep-22	Aqueous	<0.004	<0.005	<0.005
SC1-MW-03-090122	1-Sep-22	Aqueous	<0.004	<0.005	<0.005
SC3-MW-01-090122	1-Sep-22	Aqueous	<0.004	<0.005	<0.005
SC3-MW-02-090122	1-Sep-22	Aqueous	<0.004	<0.005	<0.005
SC3-MW-03-090122	1-Sep-22	Aqueous	<0.004	<0.005	<0.005

Note:
1. All units in mg/L.

ATTACHMENT C

Laboratory Data Reports

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Soil Analytical Data Reports

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September 12, 2022

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: r2021054.001.001
Laboratory Work Order Number: 22I0234

Enclosed are results of analyses for samples as received by the laboratory on September 6, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 9/12/2022

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.001.001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22I0234

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-S1-P500-0003	22I0234-01	Soil		SM 2540G	
				SW-846 6010D	
SC1-S1-P500-0306	22I0234-02	Soil		SM 2540G	
				SW-846 6010D	
SC1-S1-P501-0003	22I0234-03	Soil		SM 2540G	
				SW-846 6010D	
SC1-S1-P501-0306	22I0234-04	Soil		SM 2540G	
				SW-846 6010D	
SC1-S1-P503-0003	22I0234-05	Soil		SM 2540G	
				SW-846 6010D	
SC1-S1-P503-0306	22I0234-06	Soil		SM 2540G	
				SW-846 6010D	
SC1-S1-P506-0003	22I0234-07	Soil		SM 2540G	
				SW-846 6010D	
SC1-S1-P506-0306	22I0234-08	Soil		SM 2540G	
				SW-846 6010D	
SC1-N1-SO-CTLU-0003	22I0234-09	Soil		SM 2540G	
				SW-846 6010D	
SC1-N1-SO-CTLU-0306	22I0234-10	Soil		SM 2540G	
				SW-846 6010D	
SC1-N2-SO-CTLU-0003	22I0234-11	Soil		SM 2540G	
				SW-846 6010D	
SC1-N2-SO-CTLU-0306	22I0234-12	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P100-0003	22I0234-13	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P100-0306	22I0234-14	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P101-0003	22I0234-15	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P101-0306	22I0234-16	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P103-0003	22I0234-17	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P103-0306	22I0234-18	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P106-0003	22I0234-19	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P106-0306	22I0234-20	Soil		SM 2540G	
				SW-846 6010D	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 9/12/2022

PURCHASE ORDER NUMBER: 5948

PROJECT NUMBER: r2021054.001.001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22I0234

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N6-SO-P200-0003	22I0234-21	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P200-0306	22I0234-22	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P201-0003	22I0234-23	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P201-0306	22I0234-24	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P203-0003	22I0234-25	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P203-0306	22I0234-26	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P206-0003	22I0234-27	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P206-0306	22I0234-28	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P300-0003	22I0234-29	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P300-0306	22I0234-30	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P301-0003	22I0234-31	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P301-0306	22I0234-32	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P303-0003	22I0234-33	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P303-0306	22I0234-34	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P306-0003	22I0234-35	Soil		SM 2540G	
				SW-846 6010D	
SC1-N6-SO-P306-0306	22I0234-36	Soil		SM 2540G	
				SW-846 6010D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 6010D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Arsenic
B316692-BS1

MS-07

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Arsenic
22I0234-01[SC1-S1-P500-0003], B316680-MS1

R-02

Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

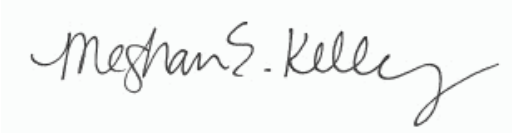
Analyte & Samples(s) Qualified:

Arsenic
B316680-DUP1

Chromium
B316680-DUP1

Copper
B316680-DUP1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Project Management Supervisor

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P500-0003 | Sampled: 9/6/2022 10:15

Sample ID: 22I0234-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	14	5.5	mg/Kg dry	1	MS-07	SW-846 6010D	9/7/22	9/8/22 14:36	ATP
Chromium	9.6	1.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:36	ATP
Copper	21	1.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:36	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P500-0003 | Sampled: 9/6/2022 10:15

Sample ID: 22I0234-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	59.8		% Wt	1		SM 2540G	9/7/22	9/7/22 18:36	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P500-0306 | Sampled: 9/6/2022 10:15

Sample ID: 22I0234-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	24	5.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:42	ATP
Chromium	14	1.0	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:42	ATP
Copper	44	1.0	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:42	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P500-0306 | Sampled: 9/6/2022 10:15

Sample ID: 22I0234-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	65.1		% Wt	1		SM 2540G	9/7/22	9/7/22 18:36	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P501-0003 | Sampled: 9/6/2022 10:10

Sample ID: 22I0234-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:47	ATP
Chromium	3.7	1.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:47	ATP
Copper	9.8	1.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:47	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P501-0003 | Sampled: 9/6/2022 10:10

Sample ID: 22I0234-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.7		% Wt	1		SM 2540G	9/7/22	9/7/22 18:36	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P501-0306 | Sampled: 9/6/2022 10:10

Sample ID: 22I0234-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.6	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:53	ATP
Chromium	3.2	0.92	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:53	ATP
Copper	5.8	0.92	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:53	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P501-0306 | Sampled: 9/6/2022 10:10

Sample ID: 22I0234-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	70.0		% Wt	1		SM 2540G	9/7/22	9/7/22 18:36	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P503-0003 | Sampled: 9/6/2022 10:05

Sample ID: 22I0234-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:58	ATP
Chromium	2.9	0.94	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:58	ATP
Copper	5.3	0.94	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 14:58	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P503-0003 | Sampled: 9/6/2022 10:05

Sample ID: 22I0234-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.9		% Wt	1		SM 2540G	9/7/22	9/7/22 18:36	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P503-0306 | Sampled: 9/6/2022 10:05

Sample ID: 22I0234-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:04	ATP
Chromium	3.3	0.89	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:04	ATP
Copper	6.7	0.89	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:04	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P503-0306 | Sampled: 9/6/2022 10:05

Sample ID: 22I0234-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	73.1		% Wt	1		SM 2540G	9/7/22	9/7/22 18:37	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P506-0003 | Sampled: 9/6/2022 10:00

Sample ID: 22I0234-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.9	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:09	ATP
Chromium	3.2	0.99	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:09	ATP
Copper	4.3	0.99	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:09	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P506-0003 | Sampled: 9/6/2022 10:00

Sample ID: 22I0234-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	66.6		% Wt	1		SM 2540G	9/7/22	9/7/22 18:37	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P506-0306 | Sampled: 9/6/2022 10:00

Sample ID: 22I0234-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.0	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:25	ATP
Chromium	3.4	1.0	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:25	ATP
Copper	7.4	1.0	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:25	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-S1-P506-0306 | Sampled: 9/6/2022 10:00

Sample ID: 22I0234-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	66.0		% Wt	1		SM 2540G	9/7/22	9/7/22 18:37	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N1-SO-CTLU-0003 | Sampled: 9/6/2022 11:05

Sample ID: 22I0234-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.2	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:31	ATP
Chromium	2.2	0.85	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:31	ATP
Copper	3.7	0.85	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:31	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N1-SO-CTLU-0003 | Sampled: 9/6/2022 11:05

Sample ID: 22I0234-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.2		% Wt	1		SM 2540G	9/7/22	9/7/22 18:37	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N1-SO-CTLU-0306 | Sampled: 9/6/2022 11:10

Sample ID: 22I0234-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.3	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:36	ATP
Chromium	2.6	0.86	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:36	ATP
Copper	3.0	0.86	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:36	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N1-SO-CTLU-0306 | Sampled: 9/6/2022 11:10

Sample ID: 22I0234-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.9		% Wt	1		SM 2540G	9/7/22	9/7/22 18:37	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N2-SO-CTLU-0003 | Sampled: 9/6/2022 11:25

Sample ID: 22I0234-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:42	ATP
Chromium	2.5	1.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:42	ATP
Copper	2.4	1.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:42	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N2-SO-CTLU-0003 | Sampled: 9/6/2022 11:25

Sample ID: 22I0234-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	62.0		% Wt	1		SM 2540G	9/7/22	9/7/22 18:38	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N2-SO-CTLU-0306 | Sampled: 9/6/2022 11:30

Sample ID: 22I0234-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:47	ATP
Chromium	2.8	0.76	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:47	ATP
Copper	2.6	0.76	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:47	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N2-SO-CTLU-0306 | Sampled: 9/6/2022 11:30

Sample ID: 22I0234-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.6		% Wt	1		SM 2540G	9/7/22	9/7/22 18:38	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P100-0003 | Sampled: 9/6/2022 11:35

Sample ID: 22I0234-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.2	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:53	ATP
Chromium	3.7	0.83	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:53	ATP
Copper	10	0.83	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:53	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P100-0003 | Sampled: 9/6/2022 11:35

Sample ID: 22I0234-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	78.1		% Wt	1		SM 2540G	9/7/22	9/7/22 18:38	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P100-0306 | Sampled: 9/6/2022 11:35

Sample ID: 22I0234-14

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:58	ATP
Chromium	3.1	0.77	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:58	ATP
Copper	4.7	0.77	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 15:58	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P100-0306 | Sampled: 9/6/2022 11:35

Sample ID: 22I0234-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.6		% Wt	1		SM 2540G	9/7/22	9/7/22 18:38	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P101-0003 | Sampled: 9/6/2022 11:40

Sample ID: 22I0234-15

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.1	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:04	ATP
Chromium	2.2	0.82	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:04	ATP
Copper	6.0	0.82	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:04	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P101-0003 | Sampled: 9/6/2022 11:40

Sample ID: 22I0234-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.6		% Wt	1		SM 2540G	9/7/22	9/7/22 18:38	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P101-0306 | Sampled: 9/6/2022 11:40

Sample ID: 22I0234-16

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:09	ATP
Chromium	2.5	0.74	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:09	ATP
Copper	4.9	0.74	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:09	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P101-0306 | Sampled: 9/6/2022 11:40

Sample ID: 22I0234-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.7		% Wt	1		SM 2540G	9/7/22	9/7/22 18:39	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P103-0003 | Sampled: 9/6/2022 11:45

Sample ID: 22I0234-17

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:15	ATP
Chromium	2.0	0.80	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:15	ATP
Copper	7.7	0.80	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:15	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P103-0003 | Sampled: 9/6/2022 11:45

Sample ID: 22I0234-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.2		% Wt	1		SM 2540G	9/7/22	9/7/22 18:39	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P103-0306 | Sampled: 9/6/2022 11:45

Sample ID: 22I0234-18

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:58	ATP
Chromium	2.5	0.77	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:58	ATP
Copper	5.0	0.77	mg/Kg dry	1		SW-846 6010D	9/7/22	9/8/22 16:58	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P103-0306 | Sampled: 9/6/2022 11:45

Sample ID: 22I0234-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.8		% Wt	1		SM 2540G	9/7/22	9/7/22 18:39	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P106-0003 | Sampled: 9/6/2022 11:50

Sample ID: 22I0234-19

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:28	MJH
Chromium	2.7	0.93	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:28	MJH
Copper	9.4	0.93	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:28	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P106-0003 | Sampled: 9/6/2022 11:50

Sample ID: 22I0234-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.6		% Wt	1		SM 2540G	9/7/22	9/7/22 18:40	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P106-0306 | Sampled: 9/6/2022 11:50

Sample ID: 22I0234-20

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:34	MJH
Chromium	2.4	0.78	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:34	MJH
Copper	6.2	0.78	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:34	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P106-0306 | Sampled: 9/6/2022 11:50

Sample ID: 22I0234-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.1		% Wt	1		SM 2540G	9/7/22	9/7/22 18:40	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P200-0003 | Sampled: 9/6/2022 12:10

Sample ID: 22I0234-21

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:49	MJH
Chromium	2.0	0.95	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:49	MJH
Copper	12	0.95	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:49	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P200-0003 | Sampled: 9/6/2022 12:10

Sample ID: 22I0234-21

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	69.8		% Wt	1		SM 2540G	9/7/22	9/7/22 18:40	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P200-0306 | Sampled: 9/6/2022 12:10

Sample ID: 22I0234-22

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.9	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:55	MJH
Chromium	1.7	0.98	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:55	MJH
Copper	7.7	0.98	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 12:55	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P200-0306 | Sampled: 9/6/2022 12:10

Sample ID: 22I0234-22

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	66.5		% Wt	1		SM 2540G	9/7/22	9/7/22 18:41	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P201-0003 | Sampled: 9/6/2022 12:15

Sample ID: 22I0234-23

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:00	MJH
Chromium	1.2	0.95	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:00	MJH
Copper	5.8	0.95	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:00	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P201-0003 | Sampled: 9/6/2022 12:15

Sample ID: 22I0234-23

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.9		% Wt	1		SM 2540G	9/7/22	9/7/22 18:42	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P201-0306 | Sampled: 9/6/2022 12:15

Sample ID: 22I0234-24

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:06	MJH
Chromium	3.0	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:06	MJH
Copper	12	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:06	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P201-0306 | Sampled: 9/6/2022 12:15

Sample ID: 22I0234-24

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	61.9		% Wt	1		SM 2540G	9/7/22	9/7/22 18:43	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P203-0003 | Sampled: 9/6/2022 12:20

Sample ID: 22I0234-25

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.6	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:11	MJH
Chromium	2.6	0.92	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:11	MJH
Copper	11	0.92	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:11	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P203-0003 | Sampled: 9/6/2022 12:20

Sample ID: 22I0234-25

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	69.9		% Wt	1		SM 2540G	9/7/22	9/7/22 18:43	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P203-0306 | Sampled: 9/6/2022 12:20

Sample ID: 22I0234-26

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:17	MJH
Chromium	2.6	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:17	MJH
Copper	9.5	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:17	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P203-0306 | Sampled: 9/6/2022 12:20

Sample ID: 22I0234-26

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	61.3		% Wt	1		SM 2540G	9/7/22	9/7/22 18:43	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P206-0003 | Sampled: 9/6/2022 12:25

Sample ID: 22I0234-27

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.7	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:22	MJH
Chromium	3.3	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:22	MJH
Copper	13	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:22	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P206-0003 | Sampled: 9/6/2022 12:25

Sample ID: 22I0234-27

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	56.0		% Wt	1		SM 2540G	9/7/22	9/7/22 18:43	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P206-0306 | Sampled: 9/6/2022 12:25

Sample ID: 22I0234-28

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:28	MJH
Chromium	2.2	0.89	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:28	MJH
Copper	10	0.89	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:28	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P206-0306 | Sampled: 9/6/2022 12:25

Sample ID: 22I0234-28

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	74.7		% Wt	1		SM 2540G	9/7/22	9/7/22 18:44	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P300-0003 | Sampled: 9/6/2022 13:30

Sample ID: 22I0234-29

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:33	MJH
Chromium	2.3	1.0	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:33	MJH
Copper	9.5	1.0	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 13:33	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P300-0003 | Sampled: 9/6/2022 13:30

Sample ID: 22I0234-29

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	65.1		% Wt	1		SM 2540G	9/7/22	9/7/22 18:44	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P300-0306 | Sampled: 9/6/2022 13:30

Sample ID: 22I0234-30

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 14:00	MJH
Chromium	1.4	0.89	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 14:00	MJH
Copper	5.7	0.89	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 14:00	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P300-0306 | Sampled: 9/6/2022 13:30

Sample ID: 22I0234-30

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	74.2		% Wt	1		SM 2540G	9/7/22	9/7/22 18:44	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P301-0003 | Sampled: 9/6/2022 13:35

Sample ID: 22I0234-31

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.3	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:46	MJH
Chromium	2.4	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:46	MJH
Copper	12	1.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:46	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P301-0003 | Sampled: 9/6/2022 13:35

Sample ID: 22I0234-31

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	62.4		% Wt	1		SM 2540G	9/7/22	9/7/22 18:44	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P301-0306 | Sampled: 9/6/2022 13:35

Sample ID: 22I0234-32

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:52	MJH
Chromium	3.6	0.88	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:52	MJH
Copper	4.9	0.88	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:52	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P301-0306 | Sampled: 9/6/2022 13:35

Sample ID: 22I0234-32

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	75.5		% Wt	1		SM 2540G	9/7/22	9/7/22 18:44	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P303-0003 | Sampled: 9/6/2022 13:40

Sample ID: 22I0234-33

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.1	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:57	MJH
Chromium	2.6	1.0	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:57	MJH
Copper	8.8	1.0	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 16:57	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P303-0003 | Sampled: 9/6/2022 13:40

Sample ID: 22I0234-33

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	64.4		% Wt	1		SM 2540G	9/7/22	9/7/22 18:45	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P303-0306 | Sampled: 9/6/2022 13:40

Sample ID: 22I0234-34

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:03	MJH
Chromium	2.4	0.95	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:03	MJH
Copper	8.2	0.95	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:03	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P303-0306 | Sampled: 9/6/2022 13:40

Sample ID: 22I0234-34

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.8		% Wt	1		SM 2540G	9/7/22	9/7/22 18:45	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P306-0003 | Sampled: 9/6/2022 13:45

Sample ID: 22I0234-35

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.3	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:08	MJH
Chromium	2.3	0.87	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:08	MJH
Copper	6.0	0.87	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:08	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P306-0003 | Sampled: 9/6/2022 13:45

Sample ID: 22I0234-35

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	73.1		% Wt	1		SM 2540G	9/7/22	9/7/22 18:45	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P306-0306 | Sampled: 9/6/2022 13:45

Sample ID: 22I0234-36

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:14	MJH
Chromium	1.9	0.87	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:14	MJH
Copper	5.3	0.87	mg/Kg dry	1		SW-846 6010D	9/8/22	9/9/22 17:14	MJH

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0234

Date Received: 9/6/2022

Field Sample #: SC1-N6-SO-P306-0306 | Sampled: 9/6/2022 13:45

Sample ID: 22I0234-36

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	75.1		% Wt	1		SM 2540G	9/7/22	9/7/22 18:45	RWS

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
22I0234-01 [SC1-S1-P500-0003]	B316642	09/07/22
22I0234-02 [SC1-S1-P500-0306]	B316642	09/07/22
22I0234-03 [SC1-S1-P501-0003]	B316642	09/07/22
22I0234-04 [SC1-S1-P501-0306]	B316642	09/07/22
22I0234-05 [SC1-S1-P503-0003]	B316642	09/07/22
22I0234-06 [SC1-S1-P503-0306]	B316642	09/07/22
22I0234-07 [SC1-S1-P506-0003]	B316642	09/07/22
22I0234-08 [SC1-S1-P506-0306]	B316642	09/07/22
22I0234-09 [SC1-N1-SO-CTLU-0003]	B316642	09/07/22
22I0234-10 [SC1-N1-SO-CTLU-0306]	B316642	09/07/22
22I0234-11 [SC1-N2-SO-CTLU-0003]	B316642	09/07/22
22I0234-12 [SC1-N2-SO-CTLU-0306]	B316642	09/07/22
22I0234-13 [SC1-N6-SO-P100-0003]	B316642	09/07/22
22I0234-14 [SC1-N6-SO-P100-0306]	B316642	09/07/22
22I0234-15 [SC1-N6-SO-P101-0003]	B316642	09/07/22
22I0234-16 [SC1-N6-SO-P101-0306]	B316642	09/07/22
22I0234-17 [SC1-N6-SO-P103-0003]	B316642	09/07/22
22I0234-18 [SC1-N6-SO-P103-0306]	B316642	09/07/22
22I0234-19 [SC1-N6-SO-P106-0003]	B316642	09/07/22
22I0234-20 [SC1-N6-SO-P106-0306]	B316642	09/07/22
22I0234-21 [SC1-N6-SO-P200-0003]	B316642	09/07/22
22I0234-22 [SC1-N6-SO-P200-0306]	B316642	09/07/22
22I0234-23 [SC1-N6-SO-P201-0003]	B316642	09/07/22
22I0234-24 [SC1-N6-SO-P201-0306]	B316642	09/07/22
22I0234-25 [SC1-N6-SO-P203-0003]	B316642	09/07/22
22I0234-26 [SC1-N6-SO-P203-0306]	B316642	09/07/22
22I0234-27 [SC1-N6-SO-P206-0003]	B316642	09/07/22
22I0234-28 [SC1-N6-SO-P206-0306]	B316642	09/07/22
22I0234-29 [SC1-N6-SO-P300-0003]	B316642	09/07/22
22I0234-30 [SC1-N6-SO-P300-0306]	B316642	09/07/22
22I0234-31 [SC1-N6-SO-P301-0003]	B316642	09/07/22
22I0234-32 [SC1-N6-SO-P301-0306]	B316642	09/07/22
22I0234-33 [SC1-N6-SO-P303-0003]	B316642	09/07/22
22I0234-34 [SC1-N6-SO-P303-0306]	B316642	09/07/22
22I0234-35 [SC1-N6-SO-P306-0003]	B316642	09/07/22
22I0234-36 [SC1-N6-SO-P306-0306]	B316642	09/07/22

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0234-01 [SC1-S1-P500-0003]	B316680	1.52	50.0	09/07/22
22I0234-02 [SC1-S1-P500-0306]	B316680	1.52	50.0	09/07/22
22I0234-03 [SC1-S1-P501-0003]	B316680	1.56	50.0	09/07/22
22I0234-04 [SC1-S1-P501-0306]	B316680	1.55	50.0	09/07/22
22I0234-05 [SC1-S1-P503-0003]	B316680	1.54	50.0	09/07/22
22I0234-06 [SC1-S1-P503-0306]	B316680	1.54	50.0	09/07/22
22I0234-07 [SC1-S1-P506-0003]	B316680	1.52	50.0	09/07/22
22I0234-08 [SC1-S1-P506-0306]	B316680	1.51	50.0	09/07/22
22I0234-09 [SC1-N1-SO-CTLU-0003]	B316680	1.53	50.0	09/07/22
22I0234-10 [SC1-N1-SO-CTLU-0306]	B316680	1.51	50.0	09/07/22
22I0234-11 [SC1-N2-SO-CTLU-0003]	B316680	1.53	50.0	09/07/22
22I0234-12 [SC1-N2-SO-CTLU-0306]	B316680	1.55	50.0	09/07/22
22I0234-13 [SC1-N6-SO-P100-0003]	B316680	1.54	50.0	09/07/22
22I0234-14 [SC1-N6-SO-P100-0306]	B316680	1.50	50.0	09/07/22

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Sample Extraction Data

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0234-15 [SC1-N6-SO-P101-0003]	B316680	1.51	50.0	09/07/22
22I0234-16 [SC1-N6-SO-P101-0306]	B316680	1.53	50.0	09/07/22
22I0234-17 [SC1-N6-SO-P103-0003]	B316680	1.54	50.0	09/07/22
22I0234-18 [SC1-N6-SO-P103-0306]	B316680	1.51	50.0	09/07/22

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0234-19 [SC1-N6-SO-P106-0003]	B316692	1.56	50.0	09/08/22
22I0234-20 [SC1-N6-SO-P106-0306]	B316692	1.52	50.0	09/08/22
22I0234-21 [SC1-N6-SO-P200-0003]	B316692	1.51	50.0	09/08/22
22I0234-22 [SC1-N6-SO-P200-0306]	B316692	1.54	50.0	09/08/22
22I0234-23 [SC1-N6-SO-P201-0003]	B316692	1.53	50.0	09/08/22
22I0234-24 [SC1-N6-SO-P201-0306]	B316692	1.52	50.0	09/08/22
22I0234-25 [SC1-N6-SO-P203-0003]	B316692	1.56	50.0	09/08/22
22I0234-26 [SC1-N6-SO-P203-0306]	B316692	1.54	50.0	09/08/22
22I0234-27 [SC1-N6-SO-P206-0003]	B316692	1.57	50.0	09/08/22
22I0234-28 [SC1-N6-SO-P206-0306]	B316692	1.51	50.0	09/08/22
22I0234-29 [SC1-N6-SO-P300-0003]	B316692	1.52	50.0	09/08/22
22I0234-30 [SC1-N6-SO-P300-0306]	B316692	1.52	50.0	09/08/22
22I0234-31 [SC1-N6-SO-P301-0003]	B316692	1.50	50.0	09/08/22
22I0234-32 [SC1-N6-SO-P301-0306]	B316692	1.51	50.0	09/08/22
22I0234-33 [SC1-N6-SO-P303-0003]	B316692	1.53	50.0	09/08/22
22I0234-34 [SC1-N6-SO-P303-0306]	B316692	1.53	50.0	09/08/22
22I0234-35 [SC1-N6-SO-P306-0003]	B316692	1.57	50.0	09/08/22
22I0234-36 [SC1-N6-SO-P306-0306]	B316692	1.53	50.0	09/08/22

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B316680 - SW-846 3050B												
Blank (B316680-BLK1)				Prepared: 09/07/22 Analyzed: 09/08/22								
Arsenic	ND	3.3	mg/Kg wet									
Chromium	ND	0.66	mg/Kg wet									
Copper	ND	0.66	mg/Kg wet									
LCS (B316680-BS1)				Prepared: 09/07/22 Analyzed: 09/08/22								
Arsenic	59.0	10	mg/Kg wet	63.0		93.7		82.2-117.6				
Chromium	65.7	2.0	mg/Kg wet	69.3		94.8		81.7-118.3				
Copper	180	2.0	mg/Kg wet	175		103		83.4-116.6				
LCS Dup (B316680-BSD1)				Prepared: 09/07/22 Analyzed: 09/08/22								
Arsenic	54.8	9.8	mg/Kg wet	63.0		87.0		82.2-117.6	7.40		30	
Chromium	62.3	2.0	mg/Kg wet	69.3		89.9		81.7-118.3	5.26		30	
Copper	168	2.0	mg/Kg wet	175		95.8		83.4-116.6	6.95		30	
Duplicate (B316680-DUP1)		**Source: 22I0234-01**		Prepared: 09/07/22 Analyzed: 09/08/22								
Arsenic	8.44	5.5	mg/Kg dry		13.7				**47.6**	*	35	R-02
Chromium	6.07	1.1	mg/Kg dry		9.62				**45.2**	*	35	R-02
Copper	13.3	1.1	mg/Kg dry		21.5				**47.2**	*	35	R-02
Matrix Spike (B316680-MS1)		**Source: 22I0234-01**		Prepared: 09/07/22 Analyzed: 09/08/22								
Arsenic	31.4	5.4	mg/Kg dry	27.2	13.7	**65.1**	*	75-125				MS-07
Chromium	35.4	1.1	mg/Kg dry	27.2	9.62	94.9		75-125				
Copper	71.9	1.1	mg/Kg dry	54.3	21.5	92.9		75-125				
Batch B316692 - SW-846 3050B												
Blank (B316692-BLK1)				Prepared: 09/07/22 Analyzed: 09/09/22								
Arsenic	ND	3.3	mg/Kg wet									
Chromium	ND	0.66	mg/Kg wet									
Copper	ND	0.66	mg/Kg wet									
LCS (B316692-BS1)				Prepared: 09/07/22 Analyzed: 09/09/22								
Arsenic	49.2	9.9	mg/Kg wet	63.0		**78.2**	*	82.2-117.6				L-07
Chromium	57.9	2.0	mg/Kg wet	69.3		83.5		81.7-118.3				
Copper	151	2.0	mg/Kg wet	175		86.0		83.4-116.6				
LCS Dup (B316692-BSD1)				Prepared: 09/07/22 Analyzed: 09/09/22								
Arsenic	59.7	9.8	mg/Kg wet	63.0		94.8		82.2-117.6	19.2		30	
Chromium	63.4	2.0	mg/Kg wet	69.3		91.4		81.7-118.3	9.01		30	
Copper	173	2.0	mg/Kg wet	175		98.8		83.4-116.6	13.8		30	
Duplicate (B316692-DUP1)		**Source: 22I0234-19**		Prepared: 09/07/22 Analyzed: 09/09/22								
Arsenic	ND	4.8	mg/Kg dry		ND				NC		35	
Chromium	2.76	0.96	mg/Kg dry		2.67				3.23		35	
Copper	9.85	0.96	mg/Kg dry		9.41				4.64		35	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B316692 - SW-846 3050B										
Matrix Spike (B316692-MS1)		**Source: 22I0234-19**		Prepared: 09/07/22 Analyzed: 09/09/22						
Arsenic	24.6	4.8	mg/Kg dry	24.2	1.13	97.0	75-125			
Chromium	29.0	0.97	mg/Kg dry	24.2	2.67	109	75-125			
Copper	66.5	0.97	mg/Kg dry	48.3	9.41	118	75-125			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Arsenic	CT,NH,NY,ME,VA,RI,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2023
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2023
NC-DW	North Carolina Department of Health and Human Services	25703	07/31/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 4

Company Name:	Maybert
Address:	105 Central St
Phone:	781-275-6050
Project Name:	Carver
Project Location:	SCI
Project Number:	R2027054.001.001
Project Manager:	S.Vetere
Pace Quote Name/Number:	00102623
Invoice Recipient:	
Sampled By:	AW/DM/NP

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush - Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: vetere@maybert.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cu, Cr, As
1	SCI-SI-PS00-0003	1015	9/6	comp	S			X				X
2	SCI-SI-PS00-0306	1015										X
3	SCI-SI-PS01-0003	1010										X
4	SCI-SI-PS01-0306	1010										X
5	SCI-SI-PS03-0003	1005										X
6	SCI-SI-PS03-0306	1005										X
7	SCI-SI-PS06-0003	1000										X
8	SCI-SI-PS06-0306	1000										X
9	SCI-NI-SO-CTLU-0003	1105										X
10	SCI-NI-SO-CTLU-0306	1110										X

Relinquished by: (signature)	Date/Time:	Client Comments:
AW	9-6 1430	
Received by: (signature)	Date/Time:	
Paul Chastney	9-6-22 1445	
Relinquished by: (signature)	Date/Time:	
Paul Chastney	9/6/22 1650	
Received by: (signature)	Date/Time:	
[illegible]	9/6/22 1650	
Relinquished by: (signature)	Date/Time:	
[illegible]	9/6/22 1830	
Received by: (signature)	Date/Time:	
[illegible] 4.9	9/6/22 1830	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Lab Comments:

Detection Limit Requirements
MA
GW
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS 16
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 2 of 4

Company Name:	Mabbett
Address:	105 Central St Stoneham
Phone:	
Project Name:	Carver
Project Location:	SCI
Project Number:	R2021054.004.009
Project Manager:	SV
Pace Quote Name/Number:	00162623
Invoice Recipient:	
Sampled By:	CW/DM/NP

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To: S.vetere@mabbettlab.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
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NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total As, Cu, Cr
11	SCI-N2-SO-CTLU-0003	1125	9/6	Comp	S			X				X
12	SCI-N2-SO-CTLU-0306	1130	↓	↓	↓			↓				X
13	SCI-N6-SO-P100-0003	1135										X
14	SCI-N6-SO-P100-0306	1135										X
15	SCI-N6-SO-P101-0003	1140										X
16	SCI-N6-SO-P101-0306	1140										X
17	SCI-N6-SO-P103-0003	1145										X
18	SCI-N6-SO-P103-0306	1145										X
19	SCI-N6-SO-P106-0003	1150										X
20	SCI-N6-SO-P106-0306	1150	↓	↓	↓			↓				X

Relinquished by: (signature)	Date/Time:
	9-6 1430
Received by: (signature)	Date/Time:
	9-6-22 1445
Relinquished by: (signature)	Date/Time:
	9-6-22 1650
Received by: (signature)	Date/Time:
	9/6/22 1650
Relinquished by: (signature)	Date/Time:
	9/6/22 1820
Received by: (signature)	Date/Time:
	9/6/22 1830
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other:

Special Requirements:
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS 76
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? (Y) N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

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N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name:	Mahlert
Address:	105 central St stoneham
Phone:	
Project Name:	Carver
Project Location:	SC1
Project Number:	E2021054.001.001
Project Manager:	SV
Pace Quote Name/Number:	00102623
Invoice Recipient:	
Sampled By:	CW/DM/NP

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

RUSH - Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To: steve@mahlert.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Ortho-Phosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	total Cr As
21	SC1-N6-SO-P200-0003	1210	9/6	COMP	S			X				X
22	SC1-N6-SO-P200-0306	1210										X
23	SC1-N6-SO-P201-0003	1215										X
24	SC1-N6-SO-P201-0306	1215										X
P203 25	SC1-N6-SO-P203-0003	1220										X
26	SC1-N6-SO-P203-0306	1220										X
27	SC1-N6-SO-P206-0003	1225										X
28	SC1-N6-SO-P206-0306	1225										X
29	SC1-N6-SO-P300-0003	1330										X
30	SC1-N6-SO-P300-0306	1330	↓	↓	↓			↓				X

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS 10
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:	Client Comments:
Received by: (signature)	Date/Time: 9-6-22 1445	
Relinquished by: (signature)	Date/Time: 9-6-22 1616	
Received by: (signature)	Date/Time: 9/6/22 1650	
Relinquished by: (signature)	Date/Time: 9/6/22 1830	
Received by: (signature) 2.0°C 4.9	Date/Time: 9/6/22 1835	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Lab Comments:

Detection Limit Requirements
MA
GW
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

22I0234

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 4 of 4

Company Name:	Woodard
Address:	105 central St Stoneham
Phone:	
Project Name:	carver
Project Location:	SCI
Project Number:	8207054.001.001
Project Manager:	S. Vetter
Pace Quote Name/Number:	00102623
Invoice Recipient:	
Sampled By:	AW/DM/NP

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To:
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cu, As, Cr
31	SCI-N6-SO-P301-0003	1335	9/6	Comp	S			X				X
32	SCI-N6-SO-P301-0306	1335	↓	↓	↓			↓				X
33	SCI-N6-SO-P303-0003	1340										X
34	SCI-N6-SO-P303-0306	1340										X
35	SCI-N6-SOP306-0003	1345										X
36	SCI-N6-SO-P306-0306	1345										X

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS 6
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? (Y) N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:	Received by: (signature)	Date/Time:
AW	9-6 1430	Paul Chartenay	9-6-22 1445
Paul Chartenay	9-6-22 1630		
	9/6/22 1650		
	9/6/22 1830		
4.9	9/6/22 1830		

Client Comments:

Detection Limit Requirements
MA
CT
Other*

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Mubbatt

Received By AL Date 9/6/22 Time 1830

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____

Direct From Sample ____ Ambient ____ Melted Ice ____

Were samples within Tempurature? Within 2-6°C T By Gun # 2 Actual Temp - 4.9

By Blank # ____ Actual Temp - ____

Was Custody Seal In tact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client? T Analysis? T Sampler Name? T

Project? T ID's? T Collection Dates/Times? T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Samples are received within holding time? T Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T splitting samples require F

Were trip blanks receive F On COC? F

Do All Samples Have the proper pH? NA Acid ____ Base ____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz ~~Amb~~.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	36
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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September 19, 2022

Mike Bloom
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: SC-1
Client Job Number:
Project Number: R2021054.001.001
Laboratory Work Order Number: 22I0306

Enclosed are results of analyses for samples as received by the laboratory on September 7, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Mike Bloom

REPORT DATE: 9/19/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: R2021054.001.001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22I0306

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: SC-1

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC1-N4-SO-P400-0003	22I0306-01	Soil		SM 2540G	
				SW-846 6010D	
SC1-N4-SO-P400-0306	22I0306-02	Soil		SM 2540G	
				SW-846 6010D	
SC1-N4-SO-P401-0003	22I0306-03	Soil		SM 2540G	
				SW-846 6010D	
SC1-N4-SO-P401-0306	22I0306-04	Soil		SM 2540G	
				SW-846 6010D	
SC1-N4-SO-P403-0003	22I0306-05	Soil		SM 2540G	
				SW-846 6010D	
SC1-N4-SO-P403-0306	22I0306-06	Soil		SM 2540G	
				SW-846 6010D	
SC1-N4-SO-P406-0003	22I0306-07	Soil		SM 2540G	
				SW-846 6010D	
SC1-N4-SO-P406-0306	22I0306-08	Soil		SM 2540G	
				SW-846 6010D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SM 2540G

Qualifications:

R-01

Duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result.

Analyte & Samples(s) Qualified:

% Solids
B316752-DUP7

SW-846 6010D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

B316926-BSD1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P400-0003 Sampled: 9/7/2022 09:30

Sample ID: 22I0306-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:15	QNW
Chromium	2.6	0.88	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:15	QNW
Copper	5.5	0.88	mg/Kg dry	1		SW-846 6010D	9/10/22	9/16/22 18:40	ATP

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P400-0003 Sampled: 9/7/2022 09:30

Sample ID: 22I0306-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	74.4		% Wt	1		SM 2540G	9/8/22	9/8/22 20:27	RWS

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P400-0306 Sampled: 9/7/2022 09:30

Sample ID: 22I0306-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.1	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:23	QNW
Chromium	3.7	0.83	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:23	QNW
Copper	7.4	0.83	mg/Kg dry	1		SW-846 6010D	9/10/22	9/16/22 18:48	ATP

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P400-0306 Sampled: 9/7/2022 09:30

Sample ID: 22I0306-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.9		% Wt	1		SM 2540G	9/8/22	9/8/22 20:27	RWS

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P401-0003 Sampled: 9/7/2022 09:35

Sample ID: 22I0306-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.6	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:45	QNW
Chromium	4.0	1.1	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:45	QNW
Copper	12	1.1	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:45	QNW

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P401-0003 Sampled: 9/7/2022 09:35

Sample ID: 22I0306-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	56.9		% Wt	1		SM 2540G	9/8/22	9/8/22 20:52	RWS

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P401-0306 Sampled: 9/7/2022 09:35

Sample ID: 22I0306-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.3	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:50	QNW
Chromium	2.5	0.85	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:50	QNW
Copper	6.3	0.85	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:50	QNW

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P401-0306 Sampled: 9/7/2022 09:35

Sample ID: 22I0306-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.6		% Wt	1		SM 2540G	9/8/22	9/8/22 20:28	RWS

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P403-0003 Sampled: 9/7/2022 09:40

Sample ID: 22I0306-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:58	QNW
Chromium	3.2	0.94	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:58	QNW
Copper	10	0.94	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 18:58	QNW

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P403-0003 Sampled: 9/7/2022 09:40

Sample ID: 22I0306-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.5		% Wt	1		SM 2540G	9/8/22	9/8/22 20:28	RWS

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P403-0306 Sampled: 9/7/2022 09:40

Sample ID: 22I0306-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:05	QNW
Chromium	2.7	0.79	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:05	QNW
Copper	4.7	0.79	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:05	QNW

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P403-0306 Sampled: 9/7/2022 09:40

Sample ID: 22I0306-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.4		% Wt	1		SM 2540G	9/8/22	9/8/22 20:28	RWS

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P406-0003 Sampled: 9/7/2022 09:45

Sample ID: 22I0306-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	6.4	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:13	QNW
Chromium	3.8	1.3	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:13	QNW
Copper	9.1	1.3	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:13	QNW

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P406-0003 Sampled: 9/7/2022 09:45

Sample ID: 22I0306-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	51.6		% Wt	1		SM 2540G	9/8/22	9/8/22 20:28	RWS

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P406-0306 Sampled: 9/7/2022 09:45

Sample ID: 22I0306-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:21	QNW
Chromium	4.0	0.94	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:21	QNW
Copper	4.6	0.94	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:21	QNW

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Project Location: SC-1 Sample Description: Work Order: 22I0306

Date Received: 9/7/2022

Field Sample #: SC1-N4-SO-P406-0306 Sampled: 9/7/2022 09:45

Sample ID: 22I0306-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	69.6		% Wt	1		SM 2540G	9/8/22	9/8/22 20:28	RWS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
22I0306-01 [SC1-N4-SO-P400-0003]	B316752	09/08/22
22I0306-02 [SC1-N4-SO-P400-0306]	B316752	09/08/22
22I0306-03 [SC1-N4-SO-P401-0003]	B316752	09/08/22
22I0306-04 [SC1-N4-SO-P401-0306]	B316752	09/08/22
22I0306-05 [SC1-N4-SO-P403-0003]	B316752	09/08/22
22I0306-06 [SC1-N4-SO-P403-0306]	B316752	09/08/22
22I0306-07 [SC1-N4-SO-P406-0003]	B316752	09/08/22
22I0306-08 [SC1-N4-SO-P406-0306]	B316752	09/08/22

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0306-01 [SC1-N4-SO-P400-0003]	B316926	1.52	50.0	09/10/22
22I0306-02 [SC1-N4-SO-P400-0306]	B316926	1.56	50.0	09/10/22
22I0306-03 [SC1-N4-SO-P401-0003]	B316926	1.58	50.0	09/10/22
22I0306-04 [SC1-N4-SO-P401-0306]	B316926	1.51	50.0	09/10/22
22I0306-05 [SC1-N4-SO-P403-0003]	B316926	1.56	50.0	09/10/22
22I0306-06 [SC1-N4-SO-P403-0306]	B316926	1.60	50.0	09/10/22
22I0306-07 [SC1-N4-SO-P406-0003]	B316926	1.52	50.0	09/10/22
22I0306-08 [SC1-N4-SO-P406-0306]	B316926	1.53	50.0	09/10/22

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B316926 - SW-846 3050B											
Blank (B316926-BLK1)				Prepared: 09/10/22 Analyzed: 09/13/22							
Arsenic	ND	3.3	mg/Kg wet								
Chromium	ND	0.66	mg/Kg wet								
Copper	ND	0.66	mg/Kg wet								
LCS (B316926-BS1)				Prepared: 09/10/22 Analyzed: 09/13/22							
Arsenic	56.8	9.9	mg/Kg wet	63.0		90.1		82.2-117.6			
Chromium	71.7	2.0	mg/Kg wet	69.3		103		81.7-118.3			
Copper	193	2.0	mg/Kg wet	175		110		83.4-116.6			
LCS Dup (B316926-BSD1)				Prepared: 09/10/22 Analyzed: 09/13/22							**L-07**
Arsenic	50.2	9.8	mg/Kg wet	63.0		**79.7**	*	82.2-117.6	12.3	30	
Chromium	74.2	2.0	mg/Kg wet	69.3		107		81.7-118.3	3.48	30	
Copper	172	2.0	mg/Kg wet	175		98.1		83.4-116.6	11.8	30	
Duplicate (B316926-DUP1)		**Source: 22I0306-01**		Prepared: 09/10/22 Analyzed: 09/13/22							
Arsenic	ND	4.3	mg/Kg dry		ND				NC	35	
Chromium	2.88	0.85	mg/Kg dry		2.56				11.9	35	
Copper	5.28	0.85	mg/Kg dry		5.48				3.82	35	
Matrix Spike (B316926-MS1)		**Source: 22I0306-01**		Prepared: 09/10/22 Analyzed: 09/13/22							
Arsenic	19.6	4.2	mg/Kg dry	21.1	0.953	88.4		75-125			
Chromium	26.2	0.84	mg/Kg dry	21.1	2.56	112		75-125			
Copper	52.6	0.84	mg/Kg dry	42.2	5.48	112		75-125			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B316752 - % Solids											
Duplicate (B316752-DUP5)	**Source: 22I0306-01**			Prepared & Analyzed: 09/08/22							
% Solids	74.5		% Wt		74.4			0.0820		5	
Duplicate (B316752-DUP6)	**Source: 22I0306-02**			Prepared & Analyzed: 09/08/22							
% Solids	75.6		% Wt		77.9			3.04		5	
Duplicate (B316752-DUP7)	**Source: 22I0306-03**			Prepared & Analyzed: 09/08/22							
% Solids	53.8		% Wt		56.9			**5.60**	*	5	R-01
Duplicate (B316752-DUP8)	**Source: 22I0306-04**			Prepared & Analyzed: 09/08/22							
% Solids	77.7		% Wt		77.6			0.171		5	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
R-01	Duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2023
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2023
NC-DW	North Carolina Department of Health and Human Services	25703	07/31/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2023

2210306

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Mabbett
Address:	105 Central St Stoneham
Phone:	781-275-6050
Project Name:	
Project Location:	SC1
Project Number:	R2021054.001.001
Project Manager:	S. Vetere
Pace Quote Name/Number:	00102623
Invoice Recipient:	
Sampled By:	CW/DM/ND

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To: vetere@mabbett.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total As, Cu, Cr,
	SC1-N4-SO-P400-0003	9-7	930	COMP	S			X				X
	SC1-N4-SO-P400-0306		930									X
	SC1-N4-SO-P401-0003		935									X
	SC1-N4-SO-P401-0306		935									X
	SC1-N4-SO-P403-0003		940									X
	SC1-N4-SO-P403-0306		940									X
	SC1-N4-SO-P406-0003		945									X
	SC1-N4-SO-P406-0306		945									X

Relinquished by: (signature)	CW	Date/Time:	9-7 1350
Received by: (signature)	Dan Belfatti	Date/Time:	9/7 1350
Relinquished by: (signature)	Dan Belfatti	Date/Time:	9/7/1625
Received by: (signature)	DM 3-1	Date/Time:	9/7/1625
Relinquished by: (signature)		Date/Time:	
Received by: (signature)		Date/Time:	
Relinquished by: (signature)		Date/Time:	
Received by: (signature)		Date/Time:	

Client Comments: SC1 letter # SO = Letters

Preservation Error Requirements
[2] pH
[3] Cl

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y (N)
Glassware in freezer? Y (N)
Prepackaged Cooler? (Y) N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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East Longmeadow, MA. 01028
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F: 413-525-6405
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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Received By Mabbett ABW Date 09/07/22 Time 1625

How were the samples received? In Cooler F No Cooler _____ On Ice T No Ice _____

Direct From Sample _____ Ambient _____ Melted Ice _____

Were samples within Tempurature? Within 2-6°C T By Gun # 5 Actual Temp - 3.1

By Blank # _____ Actual Temp - _____

Was Custody Seal In tact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? F Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client? T Analysis? T Sampler Name? T

Project? T ID's? T Collection Dates/Times? T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? N/A Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T splitting samples require F

Were trip blanks receive F On COC? F

Do All Samples Have the proper pH? Acid N/A Base N/A

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	8
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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September 19, 2022

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: SC-3
Client Job Number:
Project Number: R2021054.001.001
Laboratory Work Order Number: 22I0307

Enclosed are results of analyses for samples as received by the laboratory on September 7, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 9/19/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: R2021054.001.001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22I0307

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: SC-3

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P100-0003	22I0307-01	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P100-0306	22I0307-02	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P101-0003	22I0307-03	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P101-0306	22I0307-04	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P103-0003	22I0307-05	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P103-0306	22I0307-06	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P106-0003	22I0307-07	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P106-0306	22I0307-08	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P200-0003	22I0307-09	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P200-0306	22I0307-10	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P201-0003	22I0307-11	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P201-0306	22I0307-12	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P203-0003	22I0307-13	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P203-0306	22I0307-14	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P206-0003	22I0307-15	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P206-0306	22I0307-16	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P300-0003	22I0307-17	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P300-0306	22I0307-18	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P301-0003	22I0307-19	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P301-0306	22I0307-20	Soil		SM 2540G	
				SW-846 6010D	

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Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 9/19/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: R2021054.001.001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22I0307

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: SC-3

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-S2-SO-P303-0003	22I0307-21	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P303-0306	22I0307-22	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P306-0003	22I0307-23	Soil		SM 2540G	
				SW-846 6010D	
SC3-S2-SO-P306-0306	22I0307-24	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P500-0003	22I0307-25	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P500-0306	22I0307-26	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P501-0003	22I0307-27	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P501-0306	22I0307-28	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P503-0003	22I0307-29	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P503-0306	22I0307-30	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P506-0003	22I0307-31	Soil		SM 2540G	
				SW-846 6010D	
SC3-M1-SO-P506-0306	22I0307-32	Soil		SM 2540G	
				SW-846 6010D	
SC3-N4-SO-CTLP-0003	22I0307-33	Soil		SM 2540G	
				SW-846 6010D	
SC3-N4-SO-CTLP-0306	22I0307-34	Soil		SM 2540G	
				SW-846 6010D	
SC3-N1-SO-CTLP-0003	22I0307-35	Soil		SM 2540G	
				SW-846 6010D	
SC3-N1-SO-CTLP-0306	22I0307-36	Soil		SM 2540G	
				SW-846 6010D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 6010D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

B316926-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

Copper
B316895-BS1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P100-0003 Sampled: 9/7/2022 10:25

Sample ID: 22I0307-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:29	QNW
Chromium	5.5	0.77	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:29	QNW
Copper	2.9	0.77	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:29	QNW

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P100-0003 Sampled: 9/7/2022 10:25

Sample ID: 22I0307-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.1		% Wt	1		SM 2540G	9/8/22	9/8/22 20:29	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P100-0306 Sampled: 9/7/2022 10:25

Sample ID: 22I0307-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:35	QNW
Chromium	5.1	0.71	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:35	QNW
Copper	2.7	0.71	mg/Kg dry	1		SW-846 6010D	9/10/22	9/13/22 19:35	QNW

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P100-0306 Sampled: 9/7/2022 10:25

Sample ID: 22I0307-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.0		% Wt	1		SM 2540G	9/8/22	9/8/22 20:29	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P101-0003 Sampled: 9/7/2022 10:30

Sample ID: 22I0307-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 13:13	ATP
Chromium	5.0	0.77	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 13:13	ATP
Copper	3.3	0.77	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 13:13	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P101-0003 Sampled: 9/7/2022 10:30

Sample ID: 22I0307-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.8		% Wt	1		SM 2540G	9/8/22	9/8/22 20:30	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P101-0306 Sampled: 9/7/2022 10:30

Sample ID: 22I0307-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 13:34	ATP
Chromium	5.1	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 13:34	ATP
Copper	3.2	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 13:34	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P101-0306 Sampled: 9/7/2022 10:30

Sample ID: 22I0307-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.5		% Wt	1		SM 2540G	9/8/22	9/8/22 20:30	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P103-0003 Sampled: 9/7/2022 10:35

Sample ID: 22I0307-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:02	ATP
Chromium	4.0	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:02	ATP
Copper	2.9	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:02	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P103-0003 Sampled: 9/7/2022 10:35

Sample ID: 22I0307-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.9		% Wt	1		SM 2540G	9/8/22	9/8/22 20:30	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P103-0306 Sampled: 9/7/2022 10:35

Sample ID: 22I0307-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:09	ATP
Chromium	5.2	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:09	ATP
Copper	3.2	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:09	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P103-0306 Sampled: 9/7/2022 10:35

Sample ID: 22I0307-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.4		% Wt	1		SM 2540G	9/8/22	9/8/22 20:31	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P106-0003 Sampled: 9/7/2022 10:40

Sample ID: 22I0307-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:15	ATP
Chromium	4.7	0.75	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:15	ATP
Copper	2.7	0.75	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:15	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P106-0003 Sampled: 9/7/2022 10:40

Sample ID: 22I0307-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.9		% Wt	1		SM 2540G	9/8/22	9/8/22 20:31	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P106-0306 Sampled: 9/7/2022 10:40

Sample ID: 22I0307-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:22	ATP
Chromium	5.2	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:22	ATP
Copper	2.9	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:22	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P106-0306 Sampled: 9/7/2022 10:40

Sample ID: 22I0307-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.4		% Wt	1		SM 2540G	9/8/22	9/8/22 20:31	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P200-0003 Sampled: 9/7/2022 11:00

Sample ID: 22I0307-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:29	ATP
Chromium	4.9	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:29	ATP
Copper	2.7	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:29	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P200-0003 Sampled: 9/7/2022 11:00

Sample ID: 22I0307-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.9		% Wt	1		SM 2540G	9/8/22	9/8/22 20:31	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P200-0306 Sampled: 9/7/2022 11:00

Sample ID: 22I0307-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:36	ATP
Chromium	5.5	0.78	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:36	ATP
Copper	3.2	0.78	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:36	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P200-0306 Sampled: 9/7/2022 11:00

Sample ID: 22I0307-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.5		% Wt	1		SM 2540G	9/8/22	9/8/22 20:32	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P201-0003 Sampled: 9/7/2022 11:05

Sample ID: 22I0307-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:43	ATP
Chromium	5.1	0.75	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:43	ATP
Copper	2.8	0.75	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:43	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P201-0003 Sampled: 9/7/2022 11:05

Sample ID: 22I0307-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.3		% Wt	1		SM 2540G	9/8/22	9/8/22 20:32	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P201-0306 Sampled: 9/7/2022 11:05

Sample ID: 22I0307-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:50	ATP
Chromium	4.9	0.78	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:50	ATP
Copper	2.8	0.78	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:50	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P201-0306 Sampled: 9/7/2022 11:05

Sample ID: 22I0307-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.8		% Wt	1		SM 2540G	9/8/22	9/8/22 20:32	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P203-0003 Sampled: 9/7/2022 11:10

Sample ID: 22I0307-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.2	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:56	ATP
Chromium	4.8	0.84	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:56	ATP
Copper	3.1	0.84	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 14:56	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P203-0003 Sampled: 9/7/2022 11:10

Sample ID: 22I0307-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.5		% Wt	1		SM 2540G	9/8/22	9/8/22 20:32	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P203-0306 Sampled: 9/7/2022 11:10

Sample ID: 22I0307-14

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:03	ATP
Chromium	5.2	0.80	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:03	ATP
Copper	3.0	0.80	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:03	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P203-0306 Sampled: 9/7/2022 11:10

Sample ID: 22I0307-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.9		% Wt	1		SM 2540G	9/8/22	9/8/22 20:32	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P206-0003 Sampled: 9/7/2022 11:15

Sample ID: 22I0307-15

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:38	ATP
Chromium	5.2	0.76	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:38	ATP
Copper	2.8	0.76	mg/Kg dry	1		SW-846 6010D	9/9/22	9/15/22 22:35	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P206-0003 Sampled: 9/7/2022 11:15

Sample ID: 22I0307-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.0		% Wt	1		SM 2540G	9/8/22	9/8/22 20:33	RWS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P206-0306 Sampled: 9/7/2022 11:15

Sample ID: 22I0307-16

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:44	ATP
Chromium	4.6	0.76	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:44	ATP
Copper	2.6	0.76	mg/Kg dry	1		SW-846 6010D	9/9/22	9/15/22 22:40	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P206-0306 Sampled: 9/7/2022 11:15

Sample ID: 22I0307-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.2		% Wt	1		SM 2540G	9/8/22	9/8/22 20:33	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P300-0003 Sampled: 9/7/2022 11:40

Sample ID: 22I0307-17

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:51	ATP
Chromium	4.1	0.77	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:51	ATP
Copper	2.1	0.77	mg/Kg dry	1		SW-846 6010D	9/9/22	9/15/22 22:46	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P300-0003 Sampled: 9/7/2022 11:40

Sample ID: 22I0307-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.7		% Wt	1		SM 2540G	9/8/22	9/8/22 20:33	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P300-0306 Sampled: 9/7/2022 11:40

Sample ID: 22I0307-18

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:58	ATP
Chromium	5.1	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 15:58	ATP
Copper	2.4	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/15/22 22:51	ATP

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P300-0306 Sampled: 9/7/2022 11:40

Sample ID: 22I0307-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.6		% Wt	1		SM 2540G	9/8/22	9/8/22 20:33	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P301-0003 Sampled: 9/7/2022 11:45

Sample ID: 22I0307-19

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:42	MJH
Chromium	3.9	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:42	MJH
Copper	2.0	0.73	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:42	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P301-0003 Sampled: 9/7/2022 11:45

Sample ID: 22I0307-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.4		% Wt	1		SM 2540G	9/8/22	9/8/22 20:34	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P301-0306 Sampled: 9/7/2022 11:45

Sample ID: 22I0307-20

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:49	MJH
Chromium	3.4	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:49	MJH
Copper	1.9	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:49	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P301-0306 Sampled: 9/7/2022 11:45

Sample ID: 22I0307-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.2		% Wt	1		SM 2540G	9/8/22	9/8/22 20:34	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P303-0003 Sampled: 9/7/2022 11:50

Sample ID: 22I0307-21

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:56	MJH
Chromium	3.9	0.76	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:56	MJH
Copper	2.2	0.76	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:56	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P303-0003 Sampled: 9/7/2022 11:50

Sample ID: 22I0307-21

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.1		% Wt	1		SM 2540G	9/8/22	9/8/22 20:34	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P303-0306 Sampled: 9/7/2022 11:50

Sample ID: 22I0307-22

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:03	MJH
Chromium	3.5	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:03	MJH
Copper	2.1	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:03	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P303-0306 Sampled: 9/7/2022 11:50

Sample ID: 22I0307-22

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.7		% Wt	1		SM 2540G	9/8/22	9/8/22 20:34	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P306-0003 Sampled: 9/7/2022 11:55

Sample ID: 22I0307-23

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:10	MJH
Chromium	3.4	0.77	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:10	MJH
Copper	2.0	0.77	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:10	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P306-0003 Sampled: 9/7/2022 11:55

Sample ID: 22I0307-23

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.1		% Wt	1		SM 2540G	9/8/22	9/8/22 20:34	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P306-0306 Sampled: 9/7/2022 11:55

Sample ID: 22I0307-24

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:32	MJH
Chromium	4.0	0.72	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:32	MJH
Copper	2.5	0.72	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:32	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-S2-SO-P306-0306 Sampled: 9/7/2022 11:55

Sample ID: 22I0307-24

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.3		% Wt	1		SM 2540G	9/8/22	9/8/22 20:35	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P500-0003 Sampled: 9/7/2022 12:40

Sample ID: 22I0307-25

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.8	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:38	MJH
Chromium	4.0	1.2	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:38	MJH
Copper	2.7	1.2	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:38	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P500-0003 Sampled: 9/7/2022 12:40

Sample ID: 22I0307-25

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	55.8		% Wt	1		SM 2540G	9/8/22	9/8/22 20:35	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P500-0306 Sampled: 9/7/2022 12:40

Sample ID: 22I0307-26

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.5	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:46	MJH
Chromium	2.7	1.1	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:46	MJH
Copper	2.6	1.1	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:46	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P500-0306 Sampled: 9/7/2022 12:40

Sample ID: 22I0307-26

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	58.5		% Wt	1		SM 2540G	9/8/22	9/8/22 20:35	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P501-0003 Sampled: 9/7/2022 12:45

Sample ID: 22I0307-27

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:54	MJH
Chromium	2.8	0.88	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:54	MJH
Copper	1.9	0.88	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 18:54	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P501-0003 Sampled: 9/7/2022 12:45

Sample ID: 22I0307-27

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	73.1		% Wt	1		SM 2540G	9/8/22	9/8/22 20:35	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P501-0306 Sampled: 9/7/2022 12:45

Sample ID: 22I0307-28

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:02	MJH
Chromium	2.5	0.89	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:02	MJH
Copper	1.9	0.89	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:02	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P501-0306 Sampled: 9/7/2022 12:45

Sample ID: 22I0307-28

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	71.5		% Wt	1		SM 2540G	9/8/22	9/8/22 20:35	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P503-0003 Sampled: 9/7/2022 12:50

Sample ID: 22I0307-29

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	5.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:09	MJH
Chromium	2.6	1.1	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:09	MJH
Copper	2.1	1.1	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:09	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P503-0003 Sampled: 9/7/2022 12:50

Sample ID: 22I0307-29

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	55.3		% Wt	1		SM 2540G	9/8/22	9/8/22 20:36	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P503-0306 Sampled: 9/7/2022 12:50

Sample ID: 22I0307-30

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.3	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:17	MJH
Chromium	2.7	0.86	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:17	MJH
Copper	1.9	0.86	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:17	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P503-0306 Sampled: 9/7/2022 12:50

Sample ID: 22I0307-30

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	74.7		% Wt	1		SM 2540G	9/8/22	9/8/22 20:36	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P506-0003 Sampled: 9/7/2022 12:55

Sample ID: 22I0307-31

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:25	MJH
Chromium	2.1	0.94	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:25	MJH
Copper	1.7	0.94	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:25	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P506-0003 Sampled: 9/7/2022 12:55

Sample ID: 22I0307-31

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	69.0		% Wt	1		SM 2540G	9/8/22	9/8/22 20:36	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P506-0306 Sampled: 9/7/2022 12:55

Sample ID: 22I0307-32

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.4	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:33	MJH
Chromium	3.0	0.89	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:33	MJH
Copper	2.1	0.89	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:33	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-M1-SO-P506-0306 Sampled: 9/7/2022 12:55

Sample ID: 22I0307-32

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	72.0		% Wt	1		SM 2540G	9/8/22	9/8/22 20:36	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N4-SO-CTLP-0003 Sampled: 9/7/2022 13:35

Sample ID: 22I0307-33

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:40	MJH
Chromium	2.1	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:40	MJH
Copper	7.6	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 19:40	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N4-SO-CTLP-0003 Sampled: 9/7/2022 13:35

Sample ID: 22I0307-33

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.5		% Wt	1		SM 2540G	9/8/22	9/8/22 20:36	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N4-SO-CTLP-0306 Sampled: 9/7/2022 13:35

Sample ID: 22I0307-34

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 20:03	MJH
Chromium	3.5	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 20:03	MJH
Copper	15	0.74	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 20:03	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N4-SO-CTLP-0306 Sampled: 9/7/2022 13:35

Sample ID: 22I0307-34

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	9/8/22	9/8/22 20:37	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N1-SO-CTLP-0003 Sampled: 9/7/2022 13:40

Sample ID: 22I0307-35

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.4	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 20:10	MJH
Chromium	2.5	0.68	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 20:10	MJH
Copper	12	0.68	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 20:10	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N1-SO-CTLP-0003 Sampled: 9/7/2022 13:40

Sample ID: 22I0307-35

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.0		% Wt	1		SM 2540G	9/8/22	9/8/22 20:37	RWS

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N1-SO-CTLP-0306 Sampled: 9/7/2022 13:40

Sample ID: 22I0307-36

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.5	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:34	MJH
Chromium	2.3	0.69	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:34	MJH
Copper	3.8	0.69	mg/Kg dry	1		SW-846 6010D	9/9/22	9/11/22 17:34	MJH

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Project Location: SC-3 Sample Description: Work Order: 22I0307

Date Received: 9/7/2022

Field Sample #: SC3-N1-SO-CTLP-0306 Sampled: 9/7/2022 13:40

Sample ID: 22I0307-36

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.7		% Wt	1		SM 2540G	9/8/22	9/8/22 20:37	RWS

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
22I0307-01 [SC3-S2-SO-P100-0003]	B316752	09/08/22
22I0307-02 [SC3-S2-SO-P100-0306]	B316752	09/08/22
22I0307-03 [SC3-S2-SO-P101-0003]	B316752	09/08/22
22I0307-04 [SC3-S2-SO-P101-0306]	B316752	09/08/22
22I0307-05 [SC3-S2-SO-P103-0003]	B316752	09/08/22
22I0307-06 [SC3-S2-SO-P103-0306]	B316752	09/08/22
22I0307-07 [SC3-S2-SO-P106-0003]	B316752	09/08/22
22I0307-08 [SC3-S2-SO-P106-0306]	B316752	09/08/22
22I0307-09 [SC3-S2-SO-P200-0003]	B316752	09/08/22
22I0307-10 [SC3-S2-SO-P200-0306]	B316752	09/08/22
22I0307-11 [SC3-S2-SO-P201-0003]	B316752	09/08/22
22I0307-12 [SC3-S2-SO-P201-0306]	B316752	09/08/22
22I0307-13 [SC3-S2-SO-P203-0003]	B316752	09/08/22
22I0307-14 [SC3-S2-SO-P203-0306]	B316752	09/08/22
22I0307-15 [SC3-S2-SO-P206-0003]	B316752	09/08/22
22I0307-16 [SC3-S2-SO-P206-0306]	B316752	09/08/22
22I0307-17 [SC3-S2-SO-P300-0003]	B316752	09/08/22
22I0307-18 [SC3-S2-SO-P300-0306]	B316752	09/08/22
22I0307-19 [SC3-S2-SO-P301-0003]	B316752	09/08/22
22I0307-20 [SC3-S2-SO-P301-0306]	B316752	09/08/22
22I0307-21 [SC3-S2-SO-P303-0003]	B316752	09/08/22
22I0307-22 [SC3-S2-SO-P303-0306]	B316752	09/08/22
22I0307-23 [SC3-S2-SO-P306-0003]	B316752	09/08/22
22I0307-24 [SC3-S2-SO-P306-0306]	B316752	09/08/22
22I0307-25 [SC3-M1-SO-P500-0003]	B316752	09/08/22
22I0307-26 [SC3-M1-SO-P500-0306]	B316752	09/08/22
22I0307-27 [SC3-M1-SO-P501-0003]	B316752	09/08/22
22I0307-28 [SC3-M1-SO-P501-0306]	B316752	09/08/22
22I0307-29 [SC3-M1-SO-P503-0003]	B316752	09/08/22
22I0307-30 [SC3-M1-SO-P503-0306]	B316752	09/08/22
22I0307-31 [SC3-M1-SO-P506-0003]	B316752	09/08/22
22I0307-32 [SC3-M1-SO-P506-0306]	B316752	09/08/22
22I0307-33 [SC3-N4-SO-CTLP-0003]	B316752	09/08/22
22I0307-34 [SC3-N4-SO-CTLP-0306]	B316752	09/08/22
22I0307-35 [SC3-N1-SO-CTLP-0003]	B316752	09/08/22
22I0307-36 [SC3-N1-SO-CTLP-0306]	B316752	09/08/22

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0307-19 [SC3-S2-SO-P301-0003]	B316890	1.56	50.0	09/09/22
22I0307-20 [SC3-S2-SO-P301-0306]	B316890	1.54	50.0	09/09/22
22I0307-21 [SC3-S2-SO-P303-0003]	B316890	1.52	50.0	09/09/22
22I0307-22 [SC3-S2-SO-P303-0306]	B316890	1.56	50.0	09/09/22
22I0307-23 [SC3-S2-SO-P306-0003]	B316890	1.53	50.0	09/09/22
22I0307-24 [SC3-S2-SO-P306-0306]	B316890	1.59	50.0	09/09/22
22I0307-25 [SC3-M1-SO-P500-0003]	B316890	1.55	50.0	09/09/22
22I0307-26 [SC3-M1-SO-P500-0306]	B316890	1.56	50.0	09/09/22
22I0307-27 [SC3-M1-SO-P501-0003]	B316890	1.55	50.0	09/09/22
22I0307-28 [SC3-M1-SO-P501-0306]	B316890	1.57	50.0	09/09/22
22I0307-29 [SC3-M1-SO-P503-0003]	B316890	1.59	50.0	09/09/22
22I0307-30 [SC3-M1-SO-P503-0306]	B316890	1.56	50.0	09/09/22
22I0307-31 [SC3-M1-SO-P506-0003]	B316890	1.54	50.0	09/09/22
22I0307-32 [SC3-M1-SO-P506-0306]	B316890	1.56	50.0	09/09/22

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Sample Extraction Data

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0307-33 [SC3-N4-SO-CTLP-0003]	B316890	1.57	50.0	09/09/22
22I0307-34 [SC3-N4-SO-CTLP-0306]	B316890	1.56	50.0	09/09/22
22I0307-35 [SC3-N1-SO-CTLP-0003]	B316890	1.58	50.0	09/09/22
22I0307-36 [SC3-N1-SO-CTLP-0306]	B316890	1.53	50.0	09/09/22

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0307-03 [SC3-S2-SO-P101-0003]	B316895	1.51	50.0	09/09/22
22I0307-04 [SC3-S2-SO-P101-0306]	B316895	1.57	50.0	09/09/22
22I0307-05 [SC3-S2-SO-P103-0003]	B316895	1.57	50.0	09/09/22
22I0307-06 [SC3-S2-SO-P103-0306]	B316895	1.55	50.0	09/09/22
22I0307-07 [SC3-S2-SO-P106-0003]	B316895	1.56	50.0	09/09/22
22I0307-08 [SC3-S2-SO-P106-0306]	B316895	1.56	50.0	09/09/22
22I0307-09 [SC3-S2-SO-P200-0003]	B316895	1.59	50.0	09/09/22
22I0307-10 [SC3-S2-SO-P200-0306]	B316895	1.51	50.0	09/09/22
22I0307-11 [SC3-S2-SO-P201-0003]	B316895	1.56	50.0	09/09/22
22I0307-12 [SC3-S2-SO-P201-0306]	B316895	1.52	50.0	09/09/22
22I0307-13 [SC3-S2-SO-P203-0003]	B316895	1.50	50.0	09/09/22
22I0307-14 [SC3-S2-SO-P203-0306]	B316895	1.50	50.0	09/09/22
22I0307-15 [SC3-S2-SO-P206-0003]	B316895	1.57	50.0	09/09/22
22I0307-16 [SC3-S2-SO-P206-0306]	B316895	1.55	50.0	09/09/22
22I0307-17 [SC3-S2-SO-P300-0003]	B316895	1.51	50.0	09/09/22
22I0307-18 [SC3-S2-SO-P300-0306]	B316895	1.56	50.0	09/09/22

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0307-01 [SC3-S2-SO-P100-0003]	B316926	1.50	50.0	09/10/22
22I0307-02 [SC3-S2-SO-P100-0306]	B316926	1.60	50.0	09/10/22

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B316890 - SW-846 3050B										
Blank (B316890-BLK1)				Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	ND	3.3	mg/Kg wet							
Chromium	ND	0.66	mg/Kg wet							
Copper	ND	0.66	mg/Kg wet							
LCS (B316890-BS1)				Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	54.2	9.9	mg/Kg wet	63.0		86.0	82.2-117.6			
Chromium	61.5	2.0	mg/Kg wet	69.3		88.7	81.7-118.3			
Copper	168	2.0	mg/Kg wet	175		96.0	83.4-116.6			
LCS Dup (B316890-BSD1)				Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	55.6	9.9	mg/Kg wet	63.0		88.3	82.2-117.6	2.67	30	
Chromium	62.8	2.0	mg/Kg wet	69.3		90.6	81.7-118.3	2.19	30	
Copper	172	2.0	mg/Kg wet	175		98.5	83.4-116.6	2.51	30	
Duplicate (B316890-DUP1)	**Source: 22I0307-36**			Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	ND	3.5	mg/Kg dry		ND			NC	35	
Chromium	2.64	0.70	mg/Kg dry		2.30			13.9	35	
Copper	3.46	0.70	mg/Kg dry		3.84			10.5	35	
Matrix Spike (B316890-MS1)	**Source: 22I0307-36**			Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	14.0	3.4	mg/Kg dry	17.0	ND	82.8	75-125			
Chromium	20.4	0.68	mg/Kg dry	17.0	2.30	107	75-125			
Copper	38.7	0.68	mg/Kg dry	33.9	3.84	103	75-125			
Batch B316895 - SW-846 3050B										
Blank (B316895-BLK1)				Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	ND	3.2	mg/Kg wet							
Chromium	ND	0.65	mg/Kg wet							
Copper	ND	0.65	mg/Kg wet							
LCS (B316895-BS1)				Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	55.8	9.6	mg/Kg wet	63.0		88.5	82.2-117.6			
Chromium	79.7	1.9	mg/Kg wet	69.3		115	81.7-118.3			
Copper	209	1.9	mg/Kg wet	175		**120** *	83.4-116.6			L-07A
LCS Dup (B316895-BSD1)				Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	57.2	8.5	mg/Kg wet	63.0		90.9	82.2-117.6	2.63	30	
Chromium	75.4	1.7	mg/Kg wet	69.3		109	81.7-118.3	5.53	30	
Copper	199	1.7	mg/Kg wet	175		114	83.4-116.6	4.86	30	
Duplicate (B316895-DUP1)	**Source: 22I0307-03**			Prepared: 09/09/22 Analyzed: 09/11/22						
Arsenic	ND	3.7	mg/Kg dry		ND			NC	35	
Chromium	4.79	0.74	mg/Kg dry		4.98			3.98	35	
Copper	4.12	0.74	mg/Kg dry		3.28			22.5	35	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B316895 - SW-846 3050B											
Matrix Spike (B316895-MS1)	**Source: 22I0307-03**			Prepared: 09/09/22 Analyzed: 09/11/22							
Arsenic	17.3	3.7	mg/Kg dry	18.4	1.09	87.7		75-125			
Chromium	23.4	0.74	mg/Kg dry	18.4	4.98	100		75-125			
Copper	42.9	0.74	mg/Kg dry	36.9	3.28	107		75-125			
Batch B316926 - SW-846 3050B											
Blank (B316926-BLK1)				Prepared: 09/10/22 Analyzed: 09/13/22							
Arsenic	ND	3.3	mg/Kg wet								
Chromium	ND	0.66	mg/Kg wet								
Copper	ND	0.66	mg/Kg wet								
LCS (B316926-BS1)				Prepared: 09/10/22 Analyzed: 09/13/22							
Arsenic	56.8	9.9	mg/Kg wet	63.0		90.1		82.2-117.6			
Chromium	71.7	2.0	mg/Kg wet	69.3		103		81.7-118.3			
Copper	193	2.0	mg/Kg wet	175		110		83.4-116.6			
LCS Dup (B316926-BSD1)				Prepared: 09/10/22 Analyzed: 09/13/22							**L-07**
Arsenic	50.2	9.8	mg/Kg wet	63.0		**79.7**	*	82.2-117.6	12.3	30	
Chromium	74.2	2.0	mg/Kg wet	69.3		107		81.7-118.3	3.48	30	
Copper	172	2.0	mg/Kg wet	175		98.1		83.4-116.6	11.8	30	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2023
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2023
NC-DW	North Carolina Department of Health and Human Services	25703	07/31/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2023

22I0307

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CHAIN OF CUSTODY RECORD

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East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 4

Company Name:	Mahnett
Address:	105 central st stoneham
Phone:	781-275-6050
Project Name:	SC3
Project Location:	carver
Project Number:	R202105 4.001.001
Project Manager:	
Pace Quote Name/Number:	00102623
Invoice Recipient:	
Sampled By:	AW/DM/NP

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: kg@vetcre@mahnett.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total As, Cr, Cu
1	SC3-S2-SO-P100-0003	9-7	1025	comp	S			X				X
2	SC3-S2-SO-P100-0306		1025									X
3	SC3-S2-SO-P101-0003		1030									X
4	SC3-S2-SO-P101-0306		1030									X
5	SC3-S2-SO-P103-0003		1035									X
6	SC3-S2-SO-P103-0306		1035									X
7	SC3-S2-SO-P106-0003		1040									X
8	SC3-S2-SO-P106-0306		1040									X
9	SC3-S2-SO-P200-0003		1100									X
10	SC3-S2-SO-P200-0306		1100									X

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y (N)
Glassware in freezer? Y (N)
Prepackaged Cooler? (Y) / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature) AWay	Date/Time: 1350 9-7
Received by: (signature) Dan Bellantz	Date/Time: 9/7 1350
Relinquished by: (signature) Dan Bellantz	Date/Time: 9/7 1625
Received by: (signature) MMO 4,5	Date/Time: 9/7 1625
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:
SO = letters

Reporting Limits Requirements
MA
CT
Other

Special Requirements
MA MCP Required ☐
MCP Certification Form Required
CT RCP Required ☐
RCP Certification Form Required
MA State DW Required ☐
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
Chromatogram ☐
AIHA-LAP,LLC ☐

Lab Comments:

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Doc # 381 Rev 5_07/13/2021

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Mabbett
Address: 185 Central St
Phone:
Project Name: SC3
Project Location: Carver
Project Number: P2021054.00A-001
Project Manager: S. Vetere
Pace Quote Name/Number: 00102623
Invoice Recipient:
Sampled By:

Requested Turnaround Time			
7-Day	☐	10-Day	☐
PFAS 10-Day (std)	☐	Due Date:	

Rush Approval Required			
1-Day	☐	3-Day	☐
2-Day	☐	4-Day	☐

Data Delivery	
Format:	PDF ☒ EXCEL ☒
Other:	
CLP Like Data Pkg Required:	☒
Email To:	
Fax To #:	

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter

Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cr, Cu, As												
11	SC3-S2-SO-P201-0003	9/7	1105	Comp	S			X				X												
12	SC3-S2-SO-P201-0306		1105									X												
13	SC3-S2-SO-P203-0003		1110									X												
14	SC3-S2-SO-P203-0306		1110									X												
15	SC3-S2-SO-P206-0003		1115									X												
16	SC3-S2-SO-P206-0306		1115									X												
17	SC3-S2-SO-P300-0003		1140									X												
18	SC3-S2-SO-P300-0306		1140									X												
19	SC3-S2-SO-P301-0003		1145									X												
20	SC3-S2-SO-P301-0306		1145									X												

Relinquished by: (signature)	Date/Time:
	9-7 1350
Received by: (signature)	Date/Time:
Dan Bellatti	9/7 1350
Relinquished by: (signature)	Date/Time:
Dan Bellatti	9/7 1625
Received by: (signature)	Date/Time:
	9/7 1625
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Reporting Limit Requirements	
MA	
CT	
Other:	

Special Requirements	
☐	MA MCP Required
	MCP Certification Form Required
☐	CT RCP Required
	RCP Certification Form Required
☐	MA State DW Required
PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government	☐	Municipality	☐	MWRA	☐	WRTA	☐
Federal	☐	21 J	☐	School	☐		
City	☐	Brownfield	☐	MBTA	☐		

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y (N)
Glassware in freezer? Y (N)
Prepackaged Cooler? (Y) N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 3 of 4

Company Name:	Mabbett
Address:	105 central st stoneham
Phone:	781-275-6050
Project Name:	SC3
Project Location:	carver
Project Number:	R2021054.001.001
Project Manager:	S. Veter
Pace Quote Name/Number:	06602623
Invoice Recipient:	
Sampled By:	CW/DM/NP

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☒
Email To:
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	total As Cr, Cu	
21	SC3-S2-P303-0003	9-7	1150	comp	S			X				X	
22	SC3-S2-SO-P303-0306		1150									X	
23	SC3-S2-SO-P306-0003		1155									X	
24	SC3-S2-SO-P306-0306		1155									X	
25	SC3-M1-SO-P500-0003		1240									X	
26	SC3-M1-SO-P500-0306		1240									X	
27	SC3-M1-SO-P501-0003		1245									X	
28	SC3-M1-SO-P501-0306		1245									X	
29	SC3-M1-SO-P503-0003		1250									X	
30	SC3-M1-SO-P503-0306		1250									X	

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y (N)
Glassware in freezer? Y (N)
Prepackaged Cooler? (Y) N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:	Client Comments:
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
RA
GW
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name:	Mabbett
Address:	105 Central St Stow MA
Phone:	
Project Name:	SC3
Project Location:	Carver
Project Number:	R202054.001.001
Project Manager:	S. Veteri
Pace Quote Name/Number:	DOI02623
Invoice Recipient:	
Sampled By:	CW/NP/DM

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☑
Email To:
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cr, As, Cu											[2] Preservation Code
31	SC3-MW-SO-PS06-0003	9-7	1255	comp	S			X				X											
32	SC3-MW-SO-PS06-0306	9-7	1255									X											
33	SC3-NW-SO-CTLP-0003		1335									X											
34	SC3-NW-SO-CTLP-0306		1335									X											
35	SC3-NE-SO-CTLP-0003		1340									X											
36	SC3-NE-SO-CTLP-0306		1340									X											

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y (N)
Glassware in freezer? Y (N)
Prepackaged Cooler? (Y) N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time: 9-7 1350
Received by: (signature)	Date/Time: 9/7 1350
Relinquished by: (signature)	Date/Time: 9/7 1605
Received by: (signature)	Date/Time: 9/7 1625
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA MCP
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Comments:

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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Received By Mabbett Date 04/07/22 Time 1625

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____
Direct From Sample _____ Ambient _____ Melted Ice _____

Were samples within Tempurature? Within 2-6°C T By Gun # S Actual Temp - 4.5
By Blank # _____ Actual Temp - _____

Was Custody Seal In tact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client? T Analysis? T Sampler Name? T
Project? T ID's? T Collection Dates/Times? T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? T Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T splitting samples require F

Were trip blanks receive F On COC? F

Do All Samples Have the proper pH? Acid N/A Base N/A

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	1
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	35
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

September 26, 2022

Steve Vetere
Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180

Project Location: Carver, MA
Client Job Number:
Project Number: R2021054.001.001
Laboratory Work Order Number: 22I0455

Enclosed are results of analyses for samples as received by the laboratory on September 9, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Mabbett & Associates
105 Central St Suite 4100
Stoneham, MA 02180
ATTN: Steve Vetere

REPORT DATE: 9/26/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: R2021054.001.001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22I0455

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carver, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SC3-N3-SO-P400-0003	22I0455-01	Soil		SM 2540G	
				SW-846 6010D	
SC3-N3-SO-P400-0306	22I0455-02	Soil		SM 2540G	
				SW-846 6010D	
SC3-N3-SO-P401-0003	22I0455-03	Soil		SM 2540G	
				SW-846 6010D	
SC3-N3-SO-P401-0306	22I0455-04	Soil		SM 2540G	
				SW-846 6010D	
SC3-N3-SO-P403-0003	22I0455-05	Soil		SM 2540G	
				SW-846 6010D	
SC3-N3-SO-P403-0306	22I0455-06	Soil		SM 2540G	
				SW-846 6010D	
SC3-N3-SO-P406-0003	22I0455-07	Soil		SM 2540G	
				SW-846 6010D	
SC3-N3-SO-P406-0306	22I0455-08	Soil		SM 2540G	
				SW-846 6010D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 6010D

Qualifications:

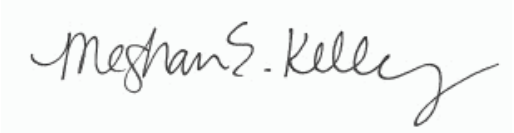
R-02

Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

Analyte & Samples(s) Qualified:

Copper
B317235-DUP1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P400-0003 | Sampled: 9/7/2022 15:00

Sample ID: 22I0455-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.2	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:29	ATP
Chromium	3.9	0.85	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:29	ATP
Copper	22	0.85	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:29	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P400-0003 | Sampled: 9/7/2022 15:00

Sample ID: 22I0455-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	75.3		% Wt	1		SM 2540G	9/12/22	9/12/22 15:16	RWS

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P400-0306 | Sampled: 9/7/2022 15:00

Sample ID: 22I0455-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:35	ATP
Chromium	3.3	0.74	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:35	ATP
Copper	8.0	0.74	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:35	ATP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P400-0306 | Sampled: 9/7/2022 15:00

Sample ID: 22I0455-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.7		% Wt	1		SM 2540G	9/12/22	9/12/22 15:16	RWS

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA
Sample Description:
Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P401-0003
Sampled: 9/7/2022 15:05

Sample ID: 22I0455-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:40	ATP
Chromium	3.5	0.80	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:40	ATP
Copper	15	0.80	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:40	ATP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P401-0003 | Sampled: 9/7/2022 15:05

Sample ID: 22I0455-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.0		% Wt	1		SM 2540G	9/12/22	9/12/22 15:16	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P401-0306 | Sampled: 9/7/2022 15:05

Sample ID: 22I0455-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:46	ATP
Chromium	4.5	0.73	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:46	ATP
Copper	8.6	0.73	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:46	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P401-0306 | Sampled: 9/7/2022 15:05

Sample ID: 22I0455-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.0		% Wt	1		SM 2540G	9/12/22	9/12/22 15:16	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P403-0003 | Sampled: 9/7/2022 15:10

Sample ID: 22I0455-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:51	ATP
Chromium	3.6	0.79	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:51	ATP
Copper	19	0.79	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:51	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P403-0003 | Sampled: 9/7/2022 15:10

Sample ID: 22I0455-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.0		% Wt	1		SM 2540G	9/12/22	9/12/22 15:16	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P403-0306 | Sampled: 9/7/2022 15:10

Sample ID: 22I0455-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:57	ATP
Chromium	3.7	0.74	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:57	ATP
Copper	7.3	0.74	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 21:57	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P403-0306 | Sampled: 9/7/2022 15:10

Sample ID: 22I0455-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.0		% Wt	1		SM 2540G	9/12/22	9/12/22 15:16	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P406-0003 | Sampled: 9/7/2022 15:15

Sample ID: 22I0455-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	4.0	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 22:02	ATP
Chromium	3.2	0.80	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 22:02	ATP
Copper	15	0.80	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 22:02	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P406-0003 | Sampled: 9/7/2022 15:15

Sample ID: 22I0455-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	78.7		% Wt	1		SM 2540G	9/12/22	9/12/22 15:17	RWS

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P406-0306 | Sampled: 9/7/2022 15:15

Sample ID: 22I0455-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 22:18	ATP
Chromium	3.6	0.74	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 22:18	ATP
Copper	8.1	0.74	mg/Kg dry	1		SW-846 6010D	9/14/22	9/15/22 22:18	ATP

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Project Location: Carver, MA | Sample Description: | Work Order: 22I0455

Date Received: 9/9/2022

Field Sample #: SC3-N3-SO-P406-0306 | Sampled: 9/7/2022 15:15

Sample ID: 22I0455-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.2		% Wt	1		SM 2540G	9/12/22	9/12/22 15:17	RWS

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
22I0455-01 [SC3-N3-SO-P400-0003]	B316963	09/12/22
22I0455-02 [SC3-N3-SO-P400-0306]	B316963	09/12/22
22I0455-03 [SC3-N3-SO-P401-0003]	B316963	09/12/22
22I0455-04 [SC3-N3-SO-P401-0306]	B316963	09/12/22
22I0455-05 [SC3-N3-SO-P403-0003]	B316963	09/12/22
22I0455-06 [SC3-N3-SO-P403-0306]	B316963	09/12/22
22I0455-07 [SC3-N3-SO-P406-0003]	B316963	09/12/22
22I0455-08 [SC3-N3-SO-P406-0306]	B316963	09/12/22

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I0455-01 [SC3-N3-SO-P400-0003]	B317235	1.57	50.0	09/14/22
22I0455-02 [SC3-N3-SO-P400-0306]	B317235	1.54	50.0	09/14/22
22I0455-03 [SC3-N3-SO-P401-0003]	B317235	1.52	50.0	09/14/22
22I0455-04 [SC3-N3-SO-P401-0306]	B317235	1.54	50.0	09/14/22
22I0455-05 [SC3-N3-SO-P403-0003]	B317235	1.56	50.0	09/14/22
22I0455-06 [SC3-N3-SO-P403-0306]	B317235	1.51	50.0	09/14/22
22I0455-07 [SC3-N3-SO-P406-0003]	B317235	1.59	50.0	09/14/22
22I0455-08 [SC3-N3-SO-P406-0306]	B317235	1.53	50.0	09/14/22

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B317235 - SW-846 3050B											
Blank (B317235-BLK1)				Prepared: 09/14/22 Analyzed: 09/15/22							
Arsenic	ND	3.3	mg/Kg wet								
Chromium	ND	0.66	mg/Kg wet								
Copper	ND	0.66	mg/Kg wet								
LCS (B317235-BS1)				Prepared: 09/14/22 Analyzed: 09/15/22							
Arsenic	60.6	10	mg/Kg wet	62.9		96.3	82.2-117.6				
Chromium	66.2	2.0	mg/Kg wet	69.2		95.6	81.7-118.3				
Copper	182	2.0	mg/Kg wet	175		104	83.4-116.6				
LCS Dup (B317235-BSD1)				Prepared: 09/14/22 Analyzed: 09/15/22							
Arsenic	59.0	9.9	mg/Kg wet	62.3		94.6	82.2-117.6	2.73		30	
Chromium	64.6	2.0	mg/Kg wet	68.6		94.2	81.7-118.3	2.40		30	
Copper	177	2.0	mg/Kg wet	173		102	83.4-116.6	2.65		30	
Duplicate (B317235-DUP1)		**Source: 22I0455-01**		Prepared: 09/14/22 Analyzed: 09/15/22							
Arsenic	ND	4.2	mg/Kg dry		ND			NC		35	
Chromium	3.53	0.85	mg/Kg dry		3.87			9.07		35	
Copper	68.3	0.85	mg/Kg dry		22.1			**102**	*	35	R-02
Matrix Spike (B317235-MS1)		**Source: 22I0455-01**		Prepared: 09/14/22 Analyzed: 09/15/22							
Arsenic	22.7	4.3	mg/Kg dry	21.5	3.04	91.6	75-125				
Chromium	26.1	0.86	mg/Kg dry	21.5	3.87	103	75-125				
Copper	64.7	0.86	mg/Kg dry	43.0	22.1	99.2	75-125				

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2023
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2023
NC-DW	North Carolina Department of Health and Human Services	25703	07/31/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2023

Pace Analytical®

22I0455

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Mabbett + Associates
Address:	105 Central St Stoneham MA
Phone:	781-275-6050
Project Name:	SC3
Project Location:	Carver
Project Number:	R202105.4.001.001
Project Manager:	S. Vetere
Pace Quote Name/Number:	06102623
Invoice Recipient:	
Sampled By:	CW

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☒
Email To: vetere@mabbett.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cu, Cr, AS
1	SC3-N3-SO-P100-0003	9-7	1500	COMP	S			X				X
2	SC3-N3-SO-P100-0306		1500									X
3	SC3-N3-SO-P101-0003		1505									X
4	SC3-N3-SO-P101-0306		1505									X
5	SC3-N3-SO-P103-0003		1510									X
6	SC3-N3-SO-P103-0306		1510									X
7	SC3-N3-SO-P106-0003		1515									X
8	SC3-N3-SO-P106-0306	↓	1515	↓	↓			↓				X

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS 8
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y (N)
Prepackaged Cooler? Y (N)
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
CWW	9-8 915
Received by: (signature)	Date/Time:
	9/9/22 12:05
Relinquished by: (signature)	Date/Time:
	9/9/22 1830
Received by: (signature)	Date/Time:
20	9/10/22 1850
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:
SO = letters

Deliverable Format Requirements
MA
CT
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Table of Contents

39 Spruce St.
East Longmeadow, MA. 01028
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F: 413-525-6405
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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Mabbett + Associates

Received By _____ Date 9/9/22 Time 1830

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____
Direct From Sample _____ Ambient _____ Melted Ice _____

Were samples within Tempurature? Within 2-6°C T By Gun # 3 Actual Temp - 20
By Blank # _____ Actual Temp - _____

Was Custody Seal In tact? N/a Were Samples Tampered with? N/a

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client? T Analysis? T Sampler Name? T
Project? T ID's? T Collection Dates/Times? T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? T Is there enough Volume? T

Is there Headspace where applicable? N/a MS/MSD? F

Proper Media/Containers Used? T splitting samples require F

Were trip blanks receive F On COC? F

Do All Samples Have the proper pH? N/A Acid Base

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	3
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

10/7/2022

Accreditation# 98218

Mabbett & Assocaites

MicroVision Labs Lead Paint Report, Job # 15595
Mabbett Project #: R2021054.001.001
Mabbett Project Name: SC-1

Scope of Work:

This report covers the methods and findings of the microscopy analysis that MicroVision Laboratories, Inc. conducted on one soil sample submitted for testing from the SC-1 project. The purpose of this analysis was to detect and document any potential treated wood fragments that may be present in the submitted soil sample, by use of a combination of microscopy techniques including macroscopic inspection and Scanning Electron Microscopy with Energy Dispersive X-ray Spectroscopy (SEM/EDS). The results presented in this report relate only to the samples examined and as received.

Methods:

MicroVision Labs is accredited to the ISO/IEC 17025:2017 standard. This analysis follows our in house SOP #MVL01 (SEM/EDS). This method is listed on our certificate of accreditation and has been validated.

The soil sample was spread on a paper towel lined metal tray and dried in a 70ºC laboratory oven for two hours. Next, the soil was examined under the stereomicroscope and any suspect pieces of treated wood were retrieved for further analysis by SEM/EDS. To do so, clean cross sectional areas of each suspect piece of wood were affixed to an analysis stub with conductive tape and coated with a thin layer (~15nm) of evaporated graphite to make them conductive for the SEM/EDS analysis.

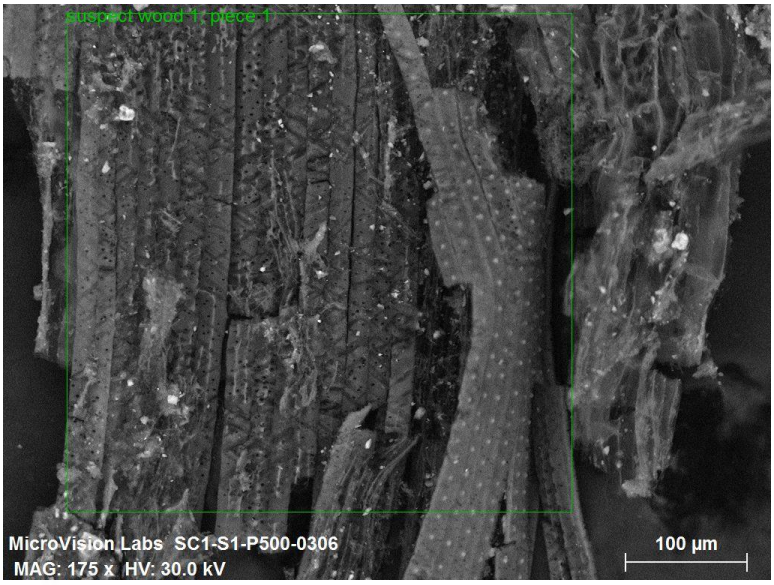
An EDS spectrum was obtained for each suspect piece of wood to determine the average elemental composition, and document the presence of any elements which might suggest the use of preservative chemicals used to treat wood utility poles (such as chlorine [found in pentachlorophenol/'Penta'], copper [found in copper naphthenate and in chromated copper arsenate/ 'CCA'], chromium and/or arsenic [both also found in CCA]). The detection limit of EDS is ~0.1%.

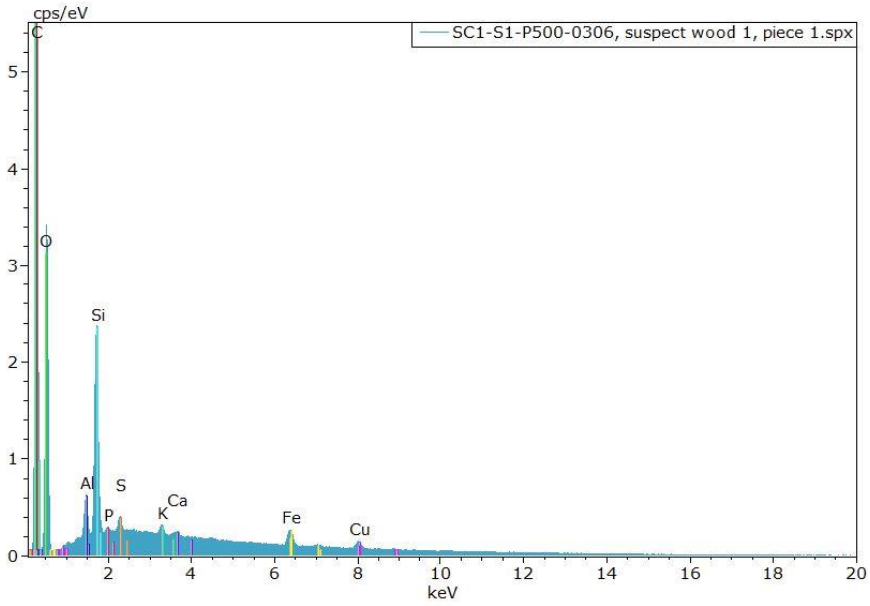
To note, the soil sample contained numerous pieces of woody vegetation such as roots, twigs and bark. These were ignored, as they were clearly vegetative matter that had not been processed/manufactured and could not have potentially been fragments of a utility pole. Only strips, chunks or flakes of wood which did not still readily appear to have a natural vegetation morphology were considered suspect and examined further.

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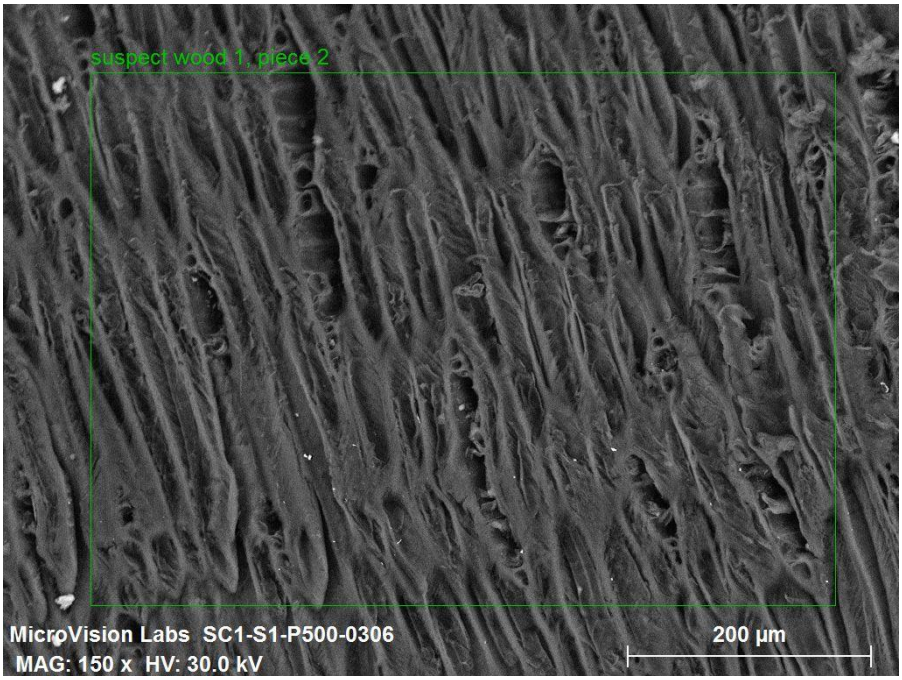
Findings: Six fragments of wood were detected in the SC1-S1-P500-0306 soil sample; most ranged from 3-6mm in length, but one was much longer, ~30mm long. These pieces appeared as thin strips and flat flakes of tan to darker brown colored wood.

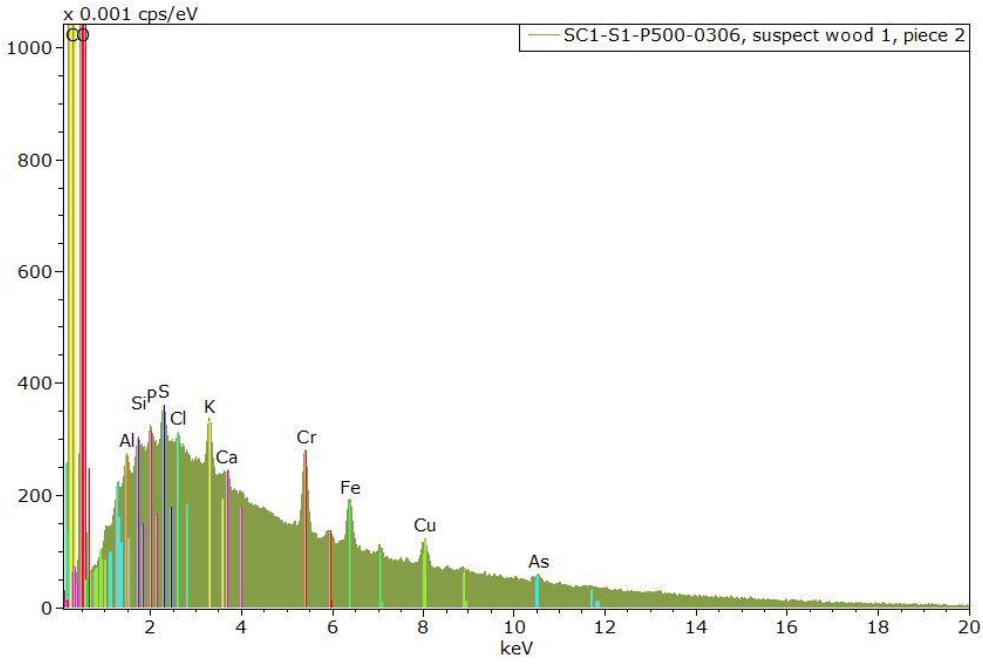
The following pages show the SEM image and corresponding EDS spectrum for each of the six fragments of wood. All six pieces contained detectable concentrations of copper. Two of the pieces also contained detectable concentrations of chromium and arsenic. None of the suspected source treated utility pole material was submitted for comparison/as a control; however, the presence of copper, chromium and arsenic- elements which are found in typical wood preservatives- does suggest all six of these wood fragments are potential pieces of treated utility pole wood.



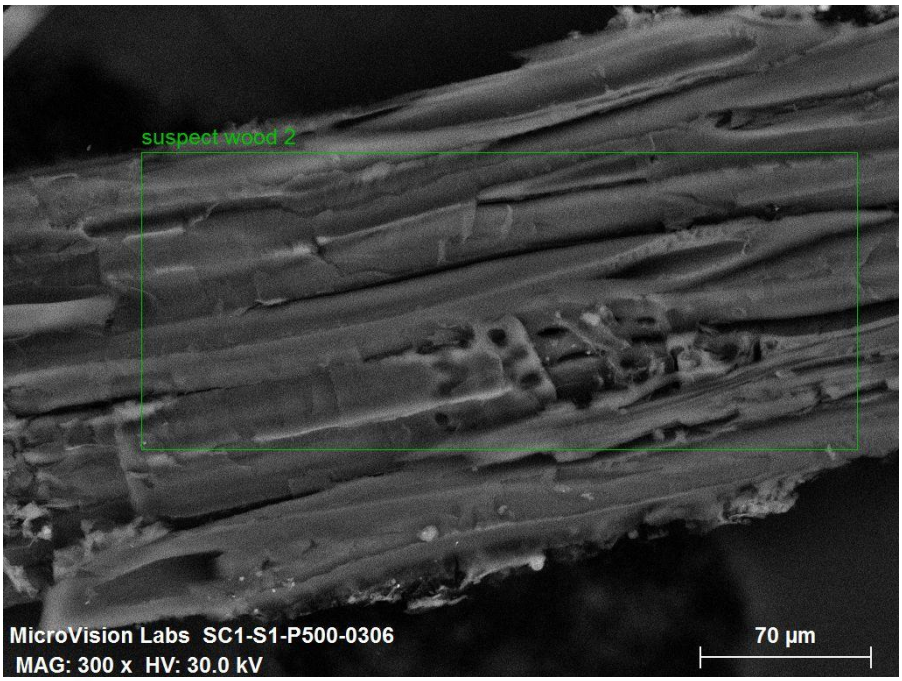


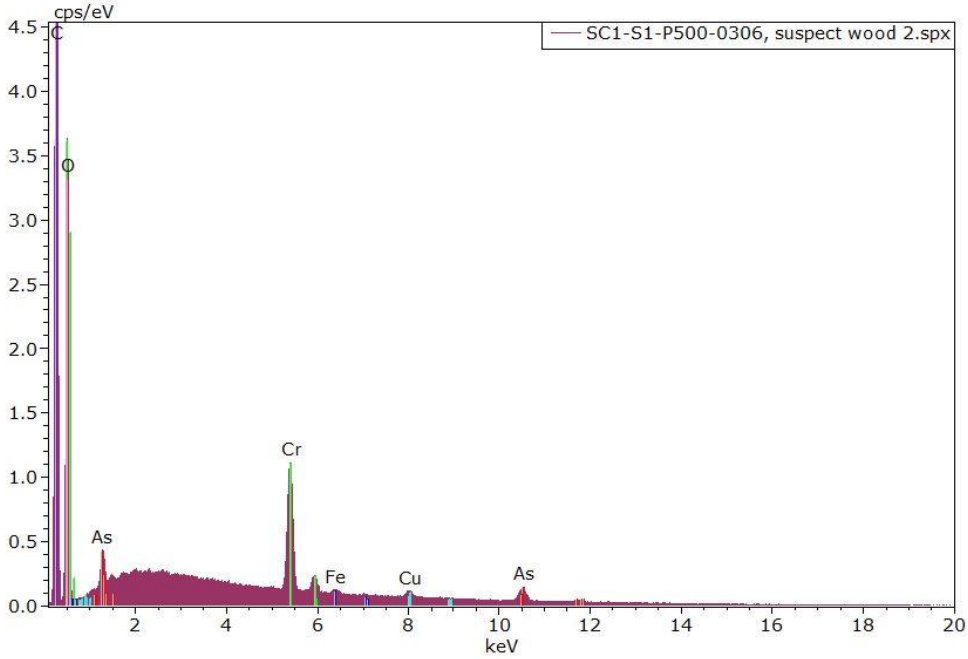
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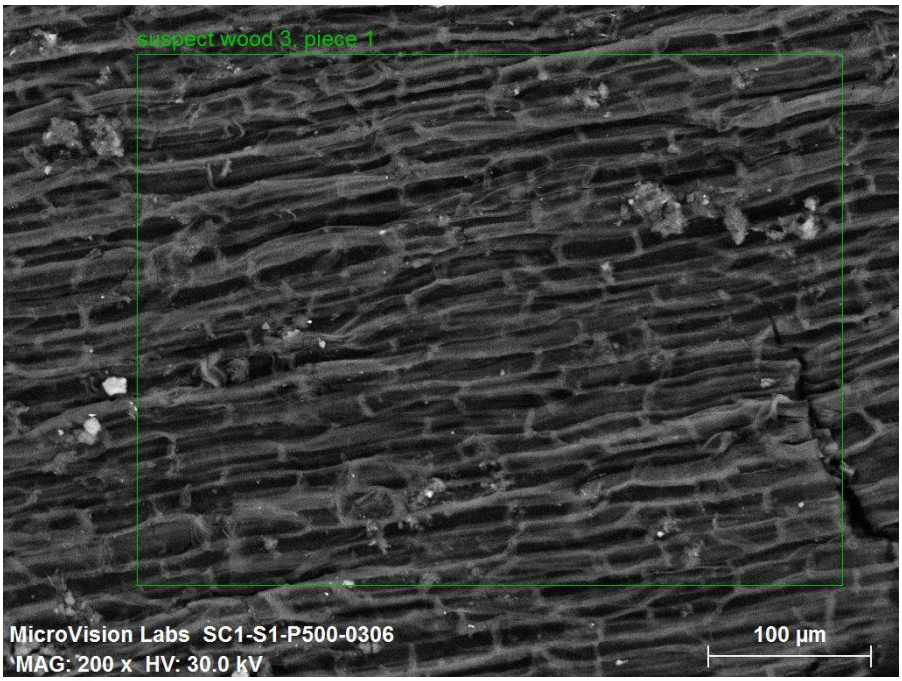


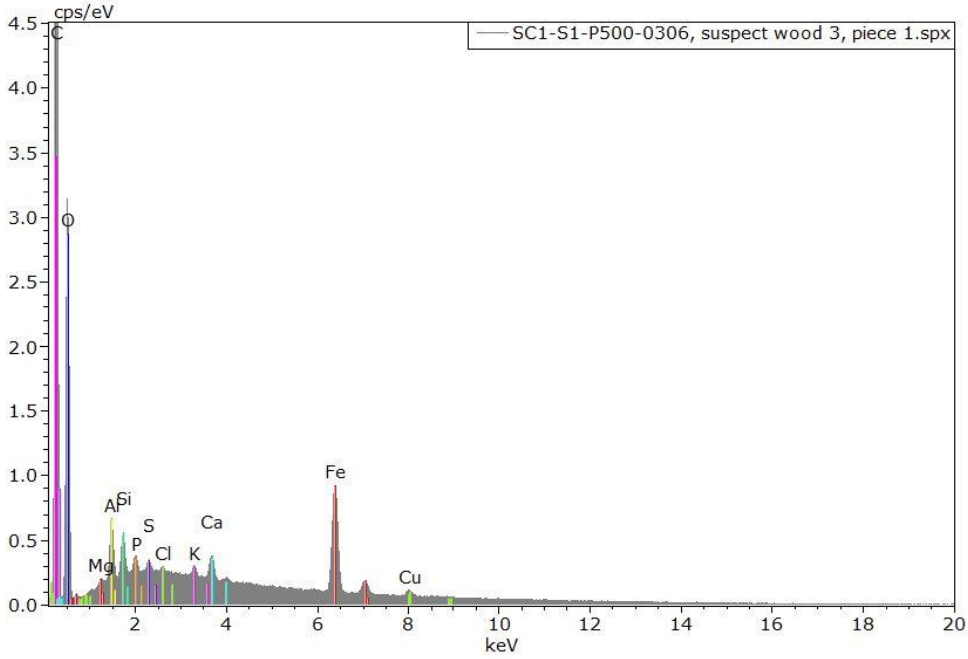
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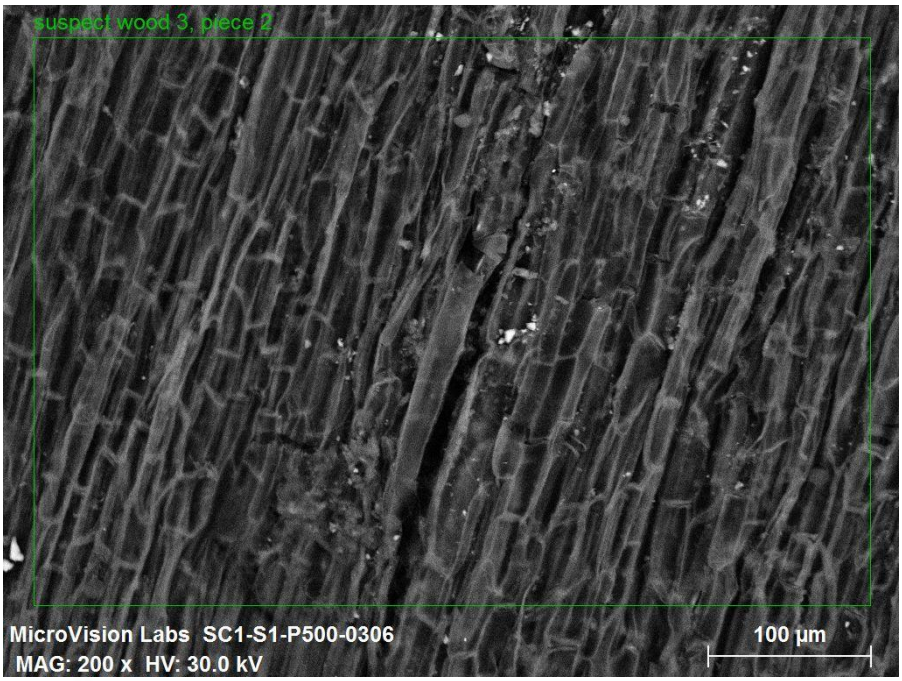


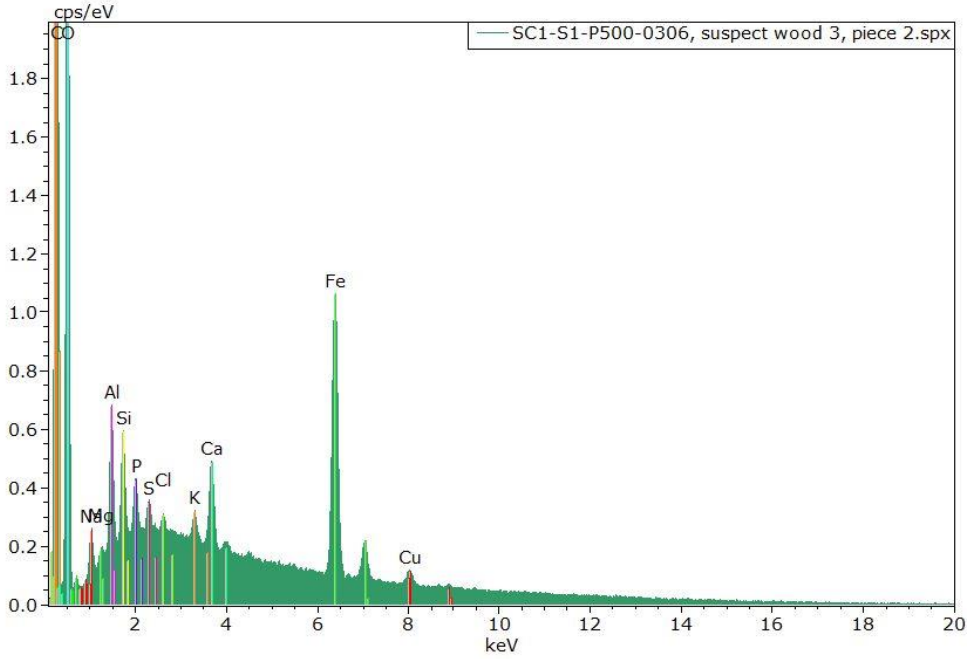
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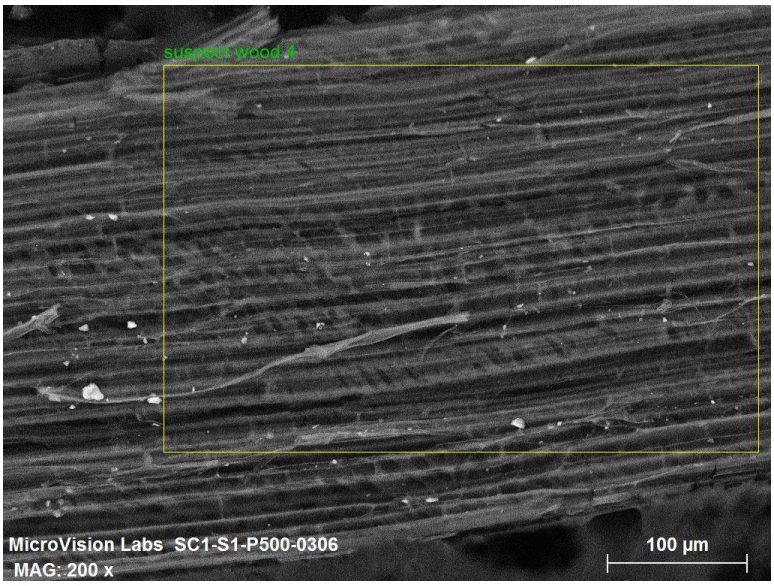


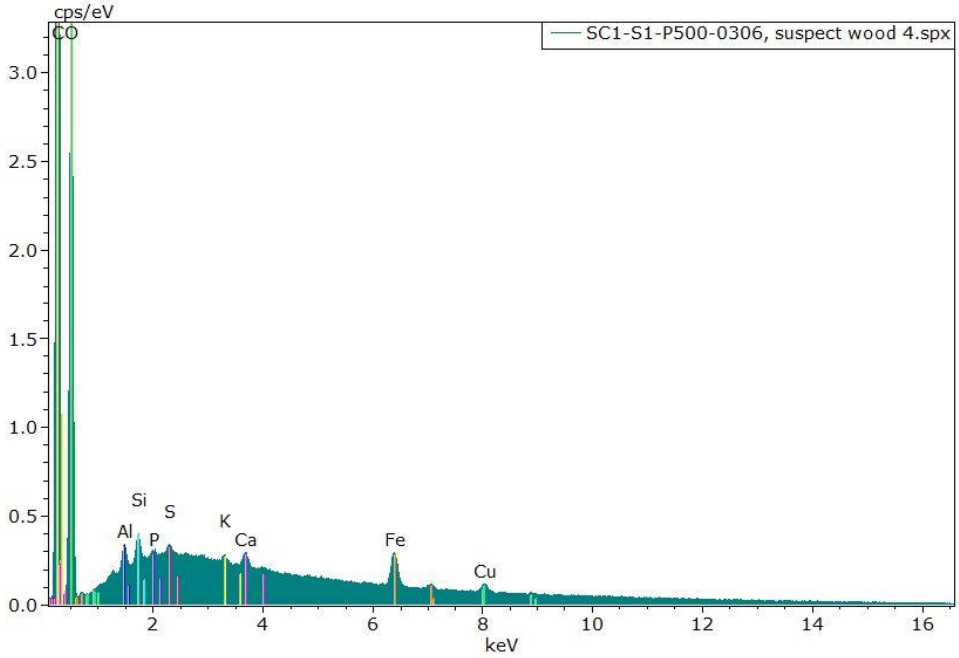
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Please let us know if you have any questions or if there is anything else we can do for you.

Sincerely,

Audra Chaput
Analytical Microscopist

Reviewed by: DW

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10/7/2022

MICROVISION LABS, INC.

Chain Of Custody

MicroVision Labs Job#: 15595

Client Information

Client: Mabbett & Associates, Inc.

Billing Address:
105 Central St, Suite 4100
Stoneham, MA 02180

Phone: 781-275-6050

Email: veteve@mabbett.com

Project Information

Project Name: SC-1

Project Location: Carver, MA

Project Number: R2021054.001.001

Project Manager: Stephen Veteve

PO#: 6037

Requested Analyses

Sample ID	Collected Date	Sampler's Initials	Coal Ash Test	Lead Paint Chips Analysis	SEM/~~EDS~~	Micro-FTIR	X-Ray Imaging	Micro-XRF	PLM/Light Microscopy	Soot ID	Unknown Material ID	Polished Cross Section	Membrane Autopsy	Particle Size Analysis	Other
1) SC1-S1-P500-0306	9/6/22	CEW			✓				✓						
2)															
3)															
4)															
5)															
6)															
7)															
8)															
9)															
10)															

Relinquished By: Michael Bloom — Date/Time

Received By: Julie Stebbins 10/5/22 1220 pm — Date/Time

List any known Hazardous Materials: Arsenic @ 24 mg/Kg

Analytical Report Requested: (YES) / NO

Turn Around Time and Notes:

48 hr TAT

- Evaluating presence of treated wood fragments, similar to a utility pole, in the soil sample.
- Notify bloom@mabbett.com for sample return/pickup at completion of SEM/PLM → will be re-analyzed for arsenic.

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Cranberry Analytical Data Reports

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ANALYTICAL REPORT

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-6825-1
Client Project/Site: SC1 - Carver, MA

For:
Mabbett & Associates, Inc.
105 Central Street
Suite 4100
Stoneham, Massachusetts 02180

Attn: Mr. Stephen Vetere

Authorized for release by:
10/3/2022 2:50:05 PM

Agnes Huntley, Project Manager
(401)372-3482
Agnes.Huntley@et.eurofinsus.com

LINKS
Review your project results through my EOL
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-6825-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-6825-1

Comments
No additional comments.

Receipt
The samples were received on 9/7/2022 6:24 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method Moisture: The sample duplicate precision for the following sample associated with analytical batch 180-413244 was outside control limits: (620-6825-A-12 DU). Non-homogeneity of the sample matrix is suspected. Sample was cranberries, and the RPD was within 20%, so results can be reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-S1-FR-500 — **Lab Sample ID: 620-6825-1**

No Detections.

Client Sample ID: SC1-S1-FR-501 — **Lab Sample ID: 620-6825-2**

No Detections.

Client Sample ID: SC1-S1-FR-503 — **Lab Sample ID: 620-6825-3**

No Detections.

Client Sample ID: SC1-S1-FR-506 — **Lab Sample ID: 620-6825-4**

No Detections.

Client Sample ID: SC1-N1-FR-CTLU — **Lab Sample ID: 620-6825-5**

No Detections.

Client Sample ID: SC1-N2-FR-CTLU — **Lab Sample ID: 620-6825-6**

No Detections.

Client Sample ID: SC1-N6-FR-P100 — **Lab Sample ID: 620-6825-7**

No Detections.

Client Sample ID: SC1-N6-FR-P101 — **Lab Sample ID: 620-6825-8**

No Detections.

Client Sample ID: SC1-N6-FR-P103 — **Lab Sample ID: 620-6825-9**

No Detections.

Client Sample ID: SC1-N6-FR-P106 — **Lab Sample ID: 620-6825-10**

No Detections.

Client Sample ID: SC1-N6-FR-P200 — **Lab Sample ID: 620-6825-11**

No Detections.

Client Sample ID: SC1-N6-FR-P201 — **Lab Sample ID: 620-6825-12**

No Detections.

Client Sample ID: SC1-N6-FR-P203 — **Lab Sample ID: 620-6825-13**

No Detections.

Client Sample ID: SC1-N6-FR-P206 — **Lab Sample ID: 620-6825-14**

No Detections.

Client Sample ID: SC1-N6-FR-P300 — **Lab Sample ID: 620-6825-15**

No Detections.

Client Sample ID: SC1-N6-FR-P301 — **Lab Sample ID: 620-6825-16**

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-N6-FR-P303 — Lab Sample ID: 620-6825-17

No Detections.

Client Sample ID: SC1-N6-FR-P306 — Lab Sample ID: 620-6825-18

No Detections.

Client Sample ID: SC1-N4-FR-P400 — Lab Sample ID: 620-6825-19

No Detections.

Client Sample ID: SC1-N4-FR-P401 — Lab Sample ID: 620-6825-20

No Detections.

Client Sample ID: SC1-N4-FR-P403 — Lab Sample ID: 620-6825-21

No Detections.

Client Sample ID: SC1-N4-FR-P406 — Lab Sample ID: 620-6825-22

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: SC1-S1-FR-500

Lab Sample ID: 620-6825-1
Date Collected: 09/06/22 10:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.4

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.13		mg/Kg	☼	09/28/22 12:08	09/29/22 11:09	1
Chromium	ND		4.07		mg/Kg	☼	09/28/22 12:08	09/29/22 11:09	1
Copper	ND		20.3		mg/Kg	☼	09/28/22 12:08	09/29/22 11:09	1

Client Sample ID: SC1-S1-FR-501

Lab Sample ID: 620-6825-2
Date Collected: 09/06/22 10:05
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.73		mg/Kg	☼	09/28/22 12:08	09/29/22 11:34	1
Chromium	ND		2.87		mg/Kg	☼	09/28/22 12:08	09/29/22 11:34	1
Copper	ND		14.3		mg/Kg	☼	09/28/22 12:08	09/29/22 11:34	1

Client Sample ID: SC1-S1-FR-503

Lab Sample ID: 620-6825-3
Date Collected: 09/06/22 10:10
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.9

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.67		mg/Kg	☼	09/28/22 12:08	09/29/22 11:39	1
Chromium	ND		3.34		mg/Kg	☼	09/28/22 12:08	09/29/22 11:39	1
Copper	ND		16.7		mg/Kg	☼	09/28/22 12:08	09/29/22 11:39	1

Client Sample ID: SC1-S1-FR-506

Lab Sample ID: 620-6825-4
Date Collected: 09/06/22 10:15
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.2

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.83		mg/Kg	☼	09/28/22 12:08	09/29/22 11:55	1
Chromium	ND		3.91		mg/Kg	☼	09/28/22 12:08	09/29/22 11:55	1
Copper	ND		19.6		mg/Kg	☼	09/28/22 12:08	09/29/22 11:55	1

Client Sample ID: SC1-N1-FR-CTLU

Lab Sample ID: 620-6825-5
Date Collected: 09/06/22 14:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.3

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.47		mg/Kg	☼	09/28/22 12:08	09/29/22 12:01	1
Chromium	ND		3.73		mg/Kg	☼	09/28/22 12:08	09/29/22 12:01	1
Copper	ND		18.7		mg/Kg	☼	09/28/22 12:08	09/29/22 12:01	1

Client Sample ID: SC1-N2-FR-CTLU

Lab Sample ID: 620-6825-6
Date Collected: 09/06/22 14:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.2

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.01		mg/Kg	☼	09/28/22 12:08	09/29/22 12:06	1
Chromium	ND		2.50		mg/Kg	☼	09/28/22 12:08	09/29/22 12:06	1

Client Sample ID: SC1-N2-FR-CTLU

Lab Sample ID: 620-6825-6
Date Collected: 09/06/22 14:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.2

Method: EPA 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		12.5		mg/Kg	☼	09/28/22 12:08	09/29/22 12:06	1

Client Sample ID: SC1-N6-FR-P100

Lab Sample ID: 620-6825-7
Date Collected: 09/06/22 11:35
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.7

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.53		mg/Kg	☼	09/28/22 12:08	09/29/22 12:11	1
Chromium	ND		2.76		mg/Kg	☼	09/28/22 12:08	09/29/22 12:11	1
Copper	ND		13.8		mg/Kg	☼	09/28/22 12:08	09/29/22 12:11	1

Client Sample ID: SC1-N6-FR-P101

Lab Sample ID: 620-6825-8
Date Collected: 09/06/22 11:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.8

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.75		mg/Kg	☼	09/28/22 12:08	09/29/22 12:17	1
Chromium	ND		4.37		mg/Kg	☼	09/28/22 12:08	09/29/22 12:17	1
Copper	ND		21.9		mg/Kg	☼	09/28/22 12:08	09/29/22 12:17	1

Client Sample ID: SC1-N6-FR-P103

Lab Sample ID: 620-6825-9
Date Collected: 09/06/22 11:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.24		mg/Kg	☼	09/28/22 12:08	09/29/22 12:22	1
Chromium	ND		3.62		mg/Kg	☼	09/28/22 12:08	09/29/22 12:22	1
Copper	ND		18.1		mg/Kg	☼	09/28/22 12:08	09/29/22 12:22	1

Client Sample ID: SC1-N6-FR-P106

Lab Sample ID: 620-6825-10
Date Collected: 09/06/22 11:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.2

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.51		mg/Kg	☼	09/28/22 12:08	09/29/22 12:27	1
Chromium	ND		4.26		mg/Kg	☼	09/28/22 12:08	09/29/22 12:27	1
Copper	ND		21.3		mg/Kg	☼	09/28/22 12:08	09/29/22 12:27	1

Client Sample ID: SC1-N6-FR-P200

Lab Sample ID: 620-6825-11
Date Collected: 09/06/22 12:10
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.48		mg/Kg	☼	09/28/22 12:08	09/29/22 12:33	1
Chromium	ND		3.24		mg/Kg	☼	09/28/22 12:08	09/29/22 12:33	1
Copper	ND		16.2		mg/Kg	☼	09/28/22 12:08	09/29/22 12:33	1

Client Sample ID: SC1-N6-FR-P201

Lab Sample ID: 620-6825-12
Date Collected: 09/06/22 12:15
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.1

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.12		mg/Kg	☼	09/28/22 12:08	09/29/22 12:38	1
Chromium	ND		3.56		mg/Kg	☼	09/28/22 12:08	09/29/22 12:38	1
Copper	ND		17.8		mg/Kg	☼	09/28/22 12:08	09/29/22 12:38	1

Client Sample ID: SC1-N6-FR-P203

Lab Sample ID: 620-6825-13
Date Collected: 09/06/22 12:20
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.07		mg/Kg	☼	09/28/22 12:08	09/29/22 12:54	1
Chromium	ND		3.04		mg/Kg	☼	09/28/22 12:08	09/29/22 12:54	1
Copper	ND		15.2		mg/Kg	☼	09/28/22 12:08	09/29/22 12:54	1

Client Sample ID: SC1-N6-FR-P206

Lab Sample ID: 620-6825-14
Date Collected: 09/06/22 12:25
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.7

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.97		mg/Kg	☼	09/28/22 12:08	09/29/22 12:59	1
Chromium	ND		2.98		mg/Kg	☼	09/28/22 12:08	09/29/22 12:59	1
Copper	ND		14.9		mg/Kg	☼	09/28/22 12:08	09/29/22 12:59	1

Client Sample ID: SC1-N6-FR-P300

Lab Sample ID: 620-6825-15
Date Collected: 09/06/22 13:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 8.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.09		mg/Kg	☼	09/28/22 12:08	09/29/22 13:05	1
Chromium	ND		4.05		mg/Kg	☼	09/28/22 12:08	09/29/22 13:05	1
Copper	ND		20.2		mg/Kg	☼	09/28/22 12:08	09/29/22 13:05	1

Client Sample ID: SC1-N6-FR-P301

Lab Sample ID: 620-6825-16
Date Collected: 09/06/22 13:35
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.3

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.35		mg/Kg	☼	09/28/22 12:08	09/29/22 13:10	1
Chromium	ND		4.17		mg/Kg	☼	09/28/22 12:08	09/29/22 13:10	1
Copper	ND		20.9		mg/Kg	☼	09/28/22 12:08	09/29/22 13:10	1

Client Sample ID: SC1-N6-FR-P303

Lab Sample ID: 620-6825-17
Date Collected: 09/06/22 13:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.25		mg/Kg	☼	09/28/22 12:08	09/29/22 13:15	1
Chromium	ND		3.12		mg/Kg	☼	09/28/22 12:08	09/29/22 13:15	1

Client Sample ID: SC1-N6-FR-P303

Lab Sample ID: 620-6825-17
Date Collected: 09/06/22 13:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Method: EPA 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		15.6		mg/Kg	☼	09/28/22 12:08	09/29/22 13:15	1

Client Sample ID: SC1-N6-FR-P306

Lab Sample ID: 620-6825-18
Date Collected: 09/06/22 13:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.5

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.96		mg/Kg	☼	09/28/22 12:08	09/29/22 13:21	1
Chromium	ND		4.48		mg/Kg	☼	09/28/22 12:08	09/29/22 13:21	1
Copper	ND		22.4		mg/Kg	☼	09/28/22 12:08	09/29/22 13:21	1

Client Sample ID: SC1-N4-FR-P400

Lab Sample ID: 620-6825-19
Date Collected: 09/07/22 09:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.4

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		9.60		mg/Kg	☼	09/28/22 12:08	09/29/22 13:26	1
Chromium	ND		4.80		mg/Kg	☼	09/28/22 12:08	09/29/22 13:26	1
Copper	ND		24.0		mg/Kg	☼	09/28/22 12:08	09/29/22 13:26	1

Client Sample ID: SC1-N4-FR-P401

Lab Sample ID: 620-6825-20
Date Collected: 09/07/22 09:35
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.9

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.98		mg/Kg	☼	09/28/22 12:08	09/29/22 13:32	1
Chromium	ND		2.99		mg/Kg	☼	09/28/22 12:08	09/29/22 13:32	1
Copper	ND		15.0		mg/Kg	☼	09/28/22 12:08	09/29/22 13:32	1

Client Sample ID: SC1-N4-FR-P403

Lab Sample ID: 620-6825-21
Date Collected: 09/07/22 09:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.3

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.05		mg/Kg	☼	09/28/22 12:13	09/29/22 10:21	1
Chromium	ND		3.02		mg/Kg	☼	09/28/22 12:13	09/29/22 10:21	1
Copper	ND		15.1		mg/Kg	☼	09/28/22 12:13	09/29/22 10:21	1

Client Sample ID: SC1-N4-FR-P406

Lab Sample ID: 620-6825-22
Date Collected: 09/07/22 09:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.4

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.31		mg/Kg	☼	09/28/22 12:13	09/29/22 10:26	1
Chromium	ND		3.16		mg/Kg	☼	09/28/22 12:13	09/29/22 10:26	1
Copper	ND		15.8		mg/Kg	☼	09/28/22 12:13	09/29/22 10:26	1

Method: EPA 6010C - Metals (ICP)

Lab Sample ID: MB 180-413468/1-A
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 413468

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.00		mg/Kg		09/28/22 12:08	09/29/22 10:58	1
Chromium	ND		0.500		mg/Kg		09/28/22 12:08	09/29/22 10:58	1
Copper	ND		2.50		mg/Kg		09/28/22 12:08	09/29/22 10:58	1

Lab Sample ID: LCS 180-413468/2-A
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413468

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	96.86		mg/Kg		97	80 - 120		
Chromium			50.0	47.97		mg/Kg		96	80 - 120		
Copper			50.0	47.55		mg/Kg		95	80 - 120		

Lab Sample ID: 620-6825-1 MS
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: SC1-S1-FR-500
Prep Type: Total/NA
Prep Batch: 413468

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	ND		813	659.4		mg/Kg	☼	81	75 - 125		
Chromium	ND		407	318.7		mg/Kg	☼	78	75 - 125		
Copper	ND		407	333.9		mg/Kg	☼	82	75 - 125		

Lab Sample ID: 620-6825-1 MSD
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: SC1-S1-FR-500
Prep Type: Total/NA
Prep Batch: 413468

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		725	589.6		mg/Kg	☼	81	75 - 125	11	20
Chromium	ND		362	285.9		mg/Kg	☼	79	75 - 125	11	20
Copper	ND		362	299.3		mg/Kg	☼	83	75 - 125	11	20

Lab Sample ID: MB 180-413470/1-A
Matrix: Solid
Analysis Batch: 413611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 413470

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.00		mg/Kg		09/28/22 12:13	09/29/22 08:15	1
Chromium	ND		0.500		mg/Kg		09/28/22 12:13	09/29/22 08:15	1
Copper	ND		2.50		mg/Kg		09/28/22 12:13	09/29/22 08:15	1

Lab Sample ID: LCS 180-413470/2-A
Matrix: Solid
Analysis Batch: 413611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413470

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	93.54		mg/Kg		94	80 - 120		
Chromium			50.0	46.93		mg/Kg		94	80 - 120		
Copper			50.0	46.14		mg/Kg		92	80 - 120		

Metals

Prep Batch: 413468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6825-1	SC1-S1-FR-500	Total/NA	Solid	3050B	
620-6825-2	SC1-S1-FR-501	Total/NA	Solid	3050B	
620-6825-3	SC1-S1-FR-503	Total/NA	Solid	3050B	
620-6825-4	SC1-S1-FR-506	Total/NA	Solid	3050B	
620-6825-5	SC1-N1-FR-CTLU	Total/NA	Solid	3050B	
620-6825-6	SC1-N2-FR-CTLU	Total/NA	Solid	3050B	
620-6825-7	SC1-N6-FR-P100	Total/NA	Solid	3050B	
620-6825-8	SC1-N6-FR-P101	Total/NA	Solid	3050B	
620-6825-9	SC1-N6-FR-P103	Total/NA	Solid	3050B	
620-6825-10	SC1-N6-FR-P106	Total/NA	Solid	3050B	
620-6825-11	SC1-N6-FR-P200	Total/NA	Solid	3050B	
620-6825-12	SC1-N6-FR-P201	Total/NA	Solid	3050B	
620-6825-13	SC1-N6-FR-P203	Total/NA	Solid	3050B	
620-6825-14	SC1-N6-FR-P206	Total/NA	Solid	3050B	
620-6825-15	SC1-N6-FR-P300	Total/NA	Solid	3050B	
620-6825-16	SC1-N6-FR-P301	Total/NA	Solid	3050B	
620-6825-17	SC1-N6-FR-P303	Total/NA	Solid	3050B	
620-6825-18	SC1-N6-FR-P306	Total/NA	Solid	3050B	
620-6825-19	SC1-N4-FR-P400	Total/NA	Solid	3050B	
620-6825-20	SC1-N4-FR-P401	Total/NA	Solid	3050B	
MB 180-413468/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-413468/2-A	Lab Control Sample	Total/NA	Solid	3050B	
620-6825-1 MS	SC1-S1-FR-500	Total/NA	Solid	3050B	
620-6825-1 MSD	SC1-S1-FR-500	Total/NA	Solid	3050B	

Prep Batch: 413470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6825-21	SC1-N4-FR-P403	Total/NA	Solid	3050B	
620-6825-22	SC1-N4-FR-P406	Total/NA	Solid	3050B	
MB 180-413470/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-413470/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 413611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6825-21	SC1-N4-FR-P403	Total/NA	Solid	EPA 6010C	413470
620-6825-22	SC1-N4-FR-P406	Total/NA	Solid	EPA 6010C	413470
MB 180-413470/1-A	Method Blank	Total/NA	Solid	EPA 6010C	413470
LCS 180-413470/2-A	Lab Control Sample	Total/NA	Solid	EPA 6010C	413470

Analysis Batch: 413693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6825-1	SC1-S1-FR-500	Total/NA	Solid	EPA 6010C	413468
620-6825-2	SC1-S1-FR-501	Total/NA	Solid	EPA 6010C	413468
620-6825-3	SC1-S1-FR-503	Total/NA	Solid	EPA 6010C	413468
620-6825-4	SC1-S1-FR-506	Total/NA	Solid	EPA 6010C	413468
620-6825-5	SC1-N1-FR-CTLU	Total/NA	Solid	EPA 6010C	413468
620-6825-6	SC1-N2-FR-CTLU	Total/NA	Solid	EPA 6010C	413468
620-6825-7	SC1-N6-FR-P100	Total/NA	Solid	EPA 6010C	413468
620-6825-8	SC1-N6-FR-P101	Total/NA	Solid	EPA 6010C	413468
620-6825-9	SC1-N6-FR-P103	Total/NA	Solid	EPA 6010C	413468
620-6825-10	SC1-N6-FR-P106	Total/NA	Solid	EPA 6010C	413468

Metals (Continued)

Analysis Batch: 413693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6825-11	SC1-N6-FR-P200	Total/NA	Solid	EPA 6010C	413468
620-6825-12	SC1-N6-FR-P201	Total/NA	Solid	EPA 6010C	413468
620-6825-13	SC1-N6-FR-P203	Total/NA	Solid	EPA 6010C	413468
620-6825-14	SC1-N6-FR-P206	Total/NA	Solid	EPA 6010C	413468
620-6825-15	SC1-N6-FR-P300	Total/NA	Solid	EPA 6010C	413468
620-6825-16	SC1-N6-FR-P301	Total/NA	Solid	EPA 6010C	413468
620-6825-17	SC1-N6-FR-P303	Total/NA	Solid	EPA 6010C	413468
620-6825-18	SC1-N6-FR-P306	Total/NA	Solid	EPA 6010C	413468
620-6825-19	SC1-N4-FR-P400	Total/NA	Solid	EPA 6010C	413468
620-6825-20	SC1-N4-FR-P401	Total/NA	Solid	EPA 6010C	413468
MB 180-413468/1-A	Method Blank	Total/NA	Solid	EPA 6010C	413468
LCS 180-413468/2-A	Lab Control Sample	Total/NA	Solid	EPA 6010C	413468
620-6825-1 MS	SC1-S1-FR-500	Total/NA	Solid	EPA 6010C	413468
620-6825-1 MSD	SC1-S1-FR-500	Total/NA	Solid	EPA 6010C	413468

General Chemistry

Analysis Batch: 413243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6825-1	SC1-S1-FR-500	Total/NA	Solid	2540G	
620-6825-2	SC1-S1-FR-501	Total/NA	Solid	2540G	
620-6825-3	SC1-S1-FR-503	Total/NA	Solid	2540G	
620-6825-4	SC1-S1-FR-506	Total/NA	Solid	2540G	
620-6825-5	SC1-N1-FR-CTLU	Total/NA	Solid	2540G	
620-6825-6	SC1-N2-FR-CTLU	Total/NA	Solid	2540G	
620-6825-7	SC1-N6-FR-P100	Total/NA	Solid	2540G	
620-6825-8	SC1-N6-FR-P101	Total/NA	Solid	2540G	
620-6825-9	SC1-N6-FR-P103	Total/NA	Solid	2540G	
620-6825-10	SC1-N6-FR-P106	Total/NA	Solid	2540G	
620-6825-11	SC1-N6-FR-P200	Total/NA	Solid	2540G	
620-6825-4 DU	SC1-S1-FR-506	Total/NA	Solid	2540G	

Analysis Batch: 413244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6825-12	SC1-N6-FR-P201	Total/NA	Solid	2540G	
620-6825-13	SC1-N6-FR-P203	Total/NA	Solid	2540G	
620-6825-14	SC1-N6-FR-P206	Total/NA	Solid	2540G	
620-6825-15	SC1-N6-FR-P300	Total/NA	Solid	2540G	
620-6825-16	SC1-N6-FR-P301	Total/NA	Solid	2540G	
620-6825-17	SC1-N6-FR-P303	Total/NA	Solid	2540G	
620-6825-18	SC1-N6-FR-P306	Total/NA	Solid	2540G	
620-6825-19	SC1-N4-FR-P400	Total/NA	Solid	2540G	
620-6825-20	SC1-N4-FR-P401	Total/NA	Solid	2540G	
620-6825-21	SC1-N4-FR-P403	Total/NA	Solid	2540G	
620-6825-22	SC1-N4-FR-P406	Total/NA	Solid	2540G	
620-6825-12 DU	SC1-N6-FR-P201	Total/NA	Solid	2540G	
620-6825-22 DU	SC1-N4-FR-P406	Total/NA	Solid	2540G	

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-S1-FR-500 — **Lab Sample ID: 620-6825-1**
Date Collected: 09/06/22 10:00 — **Matrix: Solid**
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-S1-FR-500 — **Lab Sample ID: 620-6825-1**
Date Collected: 09/06/22 10:00 — **Matrix: Solid**
Date Received: 09/07/22 18:24 — **Percent Solids: 9.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 11:09

Client Sample ID: SC1-S1-FR-501 — **Lab Sample ID: 620-6825-2**
Date Collected: 09/06/22 10:05 — **Matrix: Solid**
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-S1-FR-501 — **Lab Sample ID: 620-6825-2**
Date Collected: 09/06/22 10:05 — **Matrix: Solid**
Date Received: 09/07/22 18:24 — **Percent Solids: 11.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 11:34

Client Sample ID: SC1-S1-FR-503 — **Lab Sample ID: 620-6825-3**
Date Collected: 09/06/22 10:10 — **Matrix: Solid**
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-S1-FR-503 — **Lab Sample ID: 620-6825-3**
Date Collected: 09/06/22 10:10 — **Matrix: Solid**
Date Received: 09/07/22 18:24 — **Percent Solids: 11.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 11:39

Client Sample ID: SC1-S1-FR-506 — **Lab Sample ID: 620-6825-4**
Date Collected: 09/06/22 10:15 — **Matrix: Solid**
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-S1-FR-506
Lab Sample ID: 620-6825-4
Date Collected: 09/06/22 10:15
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 11:55

Client Sample ID: SC1-N1-FR-CTLU
Lab Sample ID: 620-6825-5
Date Collected: 09/06/22 14:00
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-N1-FR-CTLU
Lab Sample ID: 620-6825-5
Date Collected: 09/06/22 14:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:01

Client Sample ID: SC1-N2-FR-CTLU
Lab Sample ID: 620-6825-6
Date Collected: 09/06/22 14:00
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-N2-FR-CTLU
Lab Sample ID: 620-6825-6
Date Collected: 09/06/22 14:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:06

Client Sample ID: SC1-N6-FR-P100
Lab Sample ID: 620-6825-7
Date Collected: 09/06/22 11:35
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-N6-FR-P100
Lab Sample ID: 620-6825-7
Date Collected: 09/06/22 11:35
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:11

Client Sample ID: SC1-N6-FR-P101
Lab Sample ID: 620-6825-8
Date Collected: 09/06/22 11:40
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-N6-FR-P101
Lab Sample ID: 620-6825-8
Date Collected: 09/06/22 11:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:17

Client Sample ID: SC1-N6-FR-P103
Lab Sample ID: 620-6825-9
Date Collected: 09/06/22 11:45
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-N6-FR-P103
Lab Sample ID: 620-6825-9
Date Collected: 09/06/22 11:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:22

Client Sample ID: SC1-N6-FR-P106
Lab Sample ID: 620-6825-10
Date Collected: 09/06/22 11:50
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-N6-FR-P106
Lab Sample ID: 620-6825-10
Date Collected: 09/06/22 11:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:27

Client Sample ID: SC1-N6-FR-P200
Lab Sample ID: 620-6825-11
Date Collected: 09/06/22 12:10
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413243	ELS	EET PIT	09/26/22 16:25

Client Sample ID: SC1-N6-FR-P200
Lab Sample ID: 620-6825-11
Date Collected: 09/06/22 12:10
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:33

Client Sample ID: SC1-N6-FR-P201
Lab Sample ID: 620-6825-12
Date Collected: 09/06/22 12:15
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC1-N6-FR-P201
Lab Sample ID: 620-6825-12
Date Collected: 09/06/22 12:15
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:38

Client Sample ID: SC1-N6-FR-P203
Lab Sample ID: 620-6825-13
Date Collected: 09/06/22 12:20
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-N6-FR-P203
Lab Sample ID: 620-6825-13
Date Collected: 09/06/22 12:20
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:54

Client Sample ID: SC1-N6-FR-P206
Lab Sample ID: 620-6825-14
Date Collected: 09/06/22 12:25
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC1-N6-FR-P206
Lab Sample ID: 620-6825-14
Date Collected: 09/06/22 12:25
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 12:59

Client Sample ID: SC1-N6-FR-P300
Lab Sample ID: 620-6825-15
Date Collected: 09/06/22 13:30
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC1-N6-FR-P300
Lab Sample ID: 620-6825-15
Date Collected: 09/06/22 13:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 8.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 13:05

Client Sample ID: SC1-N6-FR-P301
Lab Sample ID: 620-6825-16
Date Collected: 09/06/22 13:35
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-N6-FR-P301
Lab Sample ID: 620-6825-16
Date Collected: 09/06/22 13:35
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 13:10

Client Sample ID: SC1-N6-FR-P303
Lab Sample ID: 620-6825-17
Date Collected: 09/06/22 13:40
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC1-N6-FR-P303
Lab Sample ID: 620-6825-17
Date Collected: 09/06/22 13:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 13:15

Client Sample ID: SC1-N6-FR-P306
Lab Sample ID: 620-6825-18
Date Collected: 09/06/22 13:45
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC1-N6-FR-P306
Lab Sample ID: 620-6825-18
Date Collected: 09/06/22 13:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 13:21

Client Sample ID: SC1-N4-FR-P400
Lab Sample ID: 620-6825-19
Date Collected: 09/07/22 09:30
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-N4-FR-P400
Lab Sample ID: 620-6825-19
Date Collected: 09/07/22 09:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 13:26

Client Sample ID: SC1-N4-FR-P401
Lab Sample ID: 620-6825-20
Date Collected: 09/07/22 09:35
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC1-N4-FR-P401
Lab Sample ID: 620-6825-20
Date Collected: 09/07/22 09:35
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413468	NAF	EET PIT	09/28/22 12:08
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 13:32

Client Sample ID: SC1-N4-FR-P403
Lab Sample ID: 620-6825-21
Date Collected: 09/07/22 09:40
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC1-N4-FR-P403
Lab Sample ID: 620-6825-21
Date Collected: 09/07/22 09:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413470	NAF	EET PIT	09/28/22 12:13
Total/NA	Analysis	EPA 6010C		1	413611	RJG	EET PIT	09/29/22 10:21

Client Sample ID: SC1-N4-FR-P406
Lab Sample ID: 620-6825-22
Date Collected: 09/07/22 09:45
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Client Sample ID: SC1-N4-FR-P406

Date Collected: 09/07/22 09:45
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6825-22

Matrix: Solid
Percent Solids: 10.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413470	NAF	EET PIT	09/28/22 12:13
Total/NA	Analysis	EPA 6010C		1	413611	RJG	EET PIT	09/29/22 10:26

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22 *
California	State	2891	04-30-23
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-23
Georgia	State	PA 02-00416	04-30-23
Illinois	NELAP	004375	06-30-23
Kansas	NELAP	E-10350	03-31-23
Kentucky (UST)	State	162013	04-30-23
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-22
New Hampshire	NELAP	2030	04-04-23
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-01-23
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-23
Oregon	NELAP	PA-2151	02-07-23
Pennsylvania	NELAP	02-00416	04-30-23
Rhode Island	State	LAO00362	12-31-22
South Carolina	State	89014	04-20-23
Texas	NELAP	T104704528	03-31-23
USDA	US Federal Programs	P330-16-00211	06-21-24
Utah	NELAP	PA001462019-8	05-31-23
Virginia	NELAP	10043	09-14-23
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Method	Method Description	Protocol	Laboratory
EPA 6010C	Metals (ICP)	SW846	EET PIT
2540G	SM 2540G	SM22	EET PIT
3050B	Preparation, Metals	SW846	EET PIT

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC1 - Carver, MA

Job ID: 620-6825-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-6825-1	SC1-S1-FR-500	Solid	09/06/22 10:00	09/07/22 18:24
620-6825-2	SC1-S1-FR-501	Solid	09/06/22 10:05	09/07/22 18:24
620-6825-3	SC1-S1-FR-503	Solid	09/06/22 10:10	09/07/22 18:24
620-6825-4	SC1-S1-FR-506	Solid	09/06/22 10:15	09/07/22 18:24
620-6825-5	SC1-N1-FR-CTLU	Solid	09/06/22 14:00	09/07/22 18:24
620-6825-6	SC1-N2-FR-CTLU	Solid	09/06/22 14:00	09/07/22 18:24
620-6825-7	SC1-N6-FR-P100	Solid	09/06/22 11:35	09/07/22 18:24
620-6825-8	SC1-N6-FR-P101	Solid	09/06/22 11:40	09/07/22 18:24
620-6825-9	SC1-N6-FR-P103	Solid	09/06/22 11:45	09/07/22 18:24
620-6825-10	SC1-N6-FR-P106	Solid	09/06/22 11:50	09/07/22 18:24
620-6825-11	SC1-N6-FR-P200	Solid	09/06/22 12:10	09/07/22 18:24
620-6825-12	SC1-N6-FR-P201	Solid	09/06/22 12:15	09/07/22 18:24
620-6825-13	SC1-N6-FR-P203	Solid	09/06/22 12:20	09/07/22 18:24
620-6825-14	SC1-N6-FR-P206	Solid	09/06/22 12:25	09/07/22 18:24
620-6825-15	SC1-N6-FR-P300	Solid	09/06/22 13:30	09/07/22 18:24
620-6825-16	SC1-N6-FR-P301	Solid	09/06/22 13:35	09/07/22 18:24
620-6825-17	SC1-N6-FR-P303	Solid	09/06/22 13:40	09/07/22 18:24
620-6825-18	SC1-N6-FR-P306	Solid	09/06/22 13:45	09/07/22 18:24
620-6825-19	SC1-N4-FR-P400	Solid	09/07/22 09:30	09/07/22 18:24
620-6825-20	SC1-N4-FR-P401	Solid	09/07/22 09:35	09/07/22 18:24
620-6825-21	SC1-N4-FR-P403	Solid	09/07/22 09:40	09/07/22 18:24
620-6825-22	SC1-N4-FR-P406	Solid	09/07/22 09:45	09/07/22 18:24

6825

620-6825 Chain of Custody

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

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-2332
105
Support Requests

Requested Turnaround Time			
7 Day	☐	10-Day	☐
PFAS 10-Day (std)	☐	Due Date	
Rush-Approval Required			
1 Day	☐	3 Day	☐
2 Day	☐	4-Day	☐

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter
Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter

Data Delivery	
Format. PDF [X]	EXCEL [X]
Other:	
CLP Like Data Pkg Required	☐
Email To	SVetere@mabbett.com
Fax To #:	

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

Company Name:	Mabbett
Address	105 Central St, Stoneham MA
Phone	781-275-6050
Project Name:	Carver
Project Location	SC1
Project Number:	R2021054.001.
Project Manager:	S. Vetere
~~PO~~ Quote Name/Number	620007768
Invoice Recipient.	
Sampled By	CW

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	CW, Cu, AS
01	SC1-S1-Fr-S00	9-6	1000	grab	O							X
02	SC1-S1-Fr-S01		1005									
03	SC1-S1-Fr-S03		1010									
04	SC1-S1-Fr-S06		1015									
05	SC1-N1-Fr-CTLU		1400									
06	SC1-N2-Fr-CTLU		1400									
07	SC1-N6-Fr-P100		1135									
08	SC1-N6-Fr-P101		1140									
09	SC1-N6-Fr-P103		1145									
10	SC1-N6-Fr-P106		1150									

[2] Preservation Code

Courier Use Only
Total Number Of
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) cranberries

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time: 9-7 1705	Client Comments: cranberries SC1 # letter S1 # letter
Received by: (signature)	Date/Time: 9/7/22 17:01	
Relinquished by: (signature)	Date/Time: 9/7/22 17:05	
Received by: (signature)	Date/Time: 9/7/22 18:34	
Relinquished by: (signature)	Date/Time	
Received by (signature)	Date/Time	
Relinquished by: (signature)	Date/Time	
Received by: (signature)	Date/Time	

Detection Limit Requirements		Special Requirements	
MA		☐	MA MCP Required
			MCP Certification Form Required
		☐	CT RCP Required
CT			RCP Certification Form Required
		☐	MA State DW Required
Other:		PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H High, M Medium, L Low; C Clean, U Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government	☐	Municipality	☐	MWRA	☐	WRTA	☐
Federal	☐	21 J	☐	School	☐		
City	☐	Brownfield	☐	MBTA	☐		

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:
2.4 to 2.8 #6

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable

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10/3/2022

Eurofins

6 825

Pace Analytical®

Phone: 413-525-2332
Fax: 413-525-6405

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 2 of 3

Access COC's and Support Requests

Company Name:	Mabbett
Address	105 Central St Stoneham MA
Phone	781-275-6050
Project Name:	Carver
Project Location	SC-1
Project Number:	P2021054.001
Project Manager:	S. Vetere
Pace Quote Name/Number:	62000768
Invoice Recipient.	
Sampled By	CW

Requested Turnaround Time			
7 Day	☐	10-Day	☐
PFAS 10-Day (std)	☐	Due Date	
Rush-Approval Required			
1 Day	☐	3 Day	☐
2 Day	☐	4-Day	☐
Data Delivery			
Format.	PDF ☒	EXCEL ☒	
Other:			
CLP Like Data Pkg Required	☒		
Email To	vetere@mabbett.com		
Fax To #:			

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter
Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter
PCB ONLY	
SOXHLET	☐
NON SOXHLET	☐

ANALYSIS REQUESTED

CW, As, Cr

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	
11	SC1-N6-Fr-P200	1210	9-6	grab	O							X
12	SC1-N6-Fr-P201	1215										X
13	SC1-N6-Fr-P203	1220										X
14	SC1-N6-Fr-P206	1225										X
15	SC1-N6-Fr-P300	1330										X
16	SC1-N6-Fr-P301	1335										X
17	SC1-N6-Fr-P303	1340										X
18	SC1-N6-Fr-P306	1345										X
19	SC1-N4-Fr-P400	930	9-7									X
20	SC1-N4-Fr-P401	935	9-7									X

[2] Preservation Code

Courier Use Only
Total Number Of
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

Relinquished by: (signature)	Date/Time	Client Comments.
CWay	9-7 1705	cranberries
Received by: (signature)	Date/Time:	
	9/8/21 7:10	
Relinquished by: (signature)	Date/Time	
	9/8/21 7:05	
Received by: (signature)	Date/Time	
	9/7/21 18:24	
Relinquished by (signature)	Date/Time	
Received by: (signature)	Date/Time	
Relinquished by: (signature)	Date/Time:	
Received by (signature)	Date/Time	

Detection Limit Requirements	Special Requirements	
MA	☐	MA MCP Required
		MCP Certification Form Required
CT	☐	CT RCP Required
		RCP Certification Form Required
	☐	MA State DW Required
Other:	PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above
H High M Medium, L Low; C Clean, U Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government	☐	Municipality	☐	MWRA	☐	WRTA	☐
Federal	☐	21 J	☐	School	☐		
City	☐	Brownfield	☐	MBTA	☐		

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) cranberry

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:

2.4 40.4 2.8 #6

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable

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10/3/2022

Eurofins

6825

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405

http://www.pacelabs.com

Doc # 381 Rev 5_07/13/2021

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Access COC's and Support Requests

Company Name:	Mabbett
Address:	105 central st stoneham
Phone	781-275-6050
Project Name:	carver
Project Location	SCI
Project Number:	R202054.001
Project Manager:	S. Vetere
Pace Quote Name/Number:	62000468
Invoice Recipient.	
Sampled By	CW/DWM/ND

Requested Turnaround Time

7 Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date

Rush-Approval Required

1 Day ☐ 3 Day ☐
2 Day ☐ 4-Day ☐

Format. PDF ☒ EXCEL ☑
Other:
CLP Like Data Pkg Required ☐
Email To vetere@mabbett.com
Fax To #:

Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter

Ortho Phosphate Samples: ○ Field Filtered ○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cu, Cr, AS
21	SCI-N4-FR-0403	9-7	940	G	O							X
22	SCI-N4-FR-0406	9-7	945	G	O							X

[2] Preservation Code

Courier Use Only
Total Number Of
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

Relinquished by: (signature)	Date/Time	9-7 1705
Received by: (signature)	Date/Time:	9/7/22 17:07
Relinquished by: (signature)	Date/Time:	9/7/22 17:07
Received by: (signature)	Date/Time	9/7/22 1824
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time	
Received by: (signature)	Date/Time:	

Client Comments: SCI ← # letter

cranberries

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate *possible sample concentration within the Conc Code column above*:
H High, M - Medium, L - Low; C Clean, U Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) food cranberry

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments.

2.4 to.4 2.8 DB

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable

10/3/2022

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone 413-789-9018

Chain of Custody Record

620-6825 Chain of Custody

Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Huntley, Agnes R		1.1
Client Contact: Shipping/Receiving	Phone	E-Mail: Agnes.Huntley@et eurofinsus com	State of Origin: Massachusetts	Page: Page 1 of 3
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Massachusetts		Job #: 620-6825-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 9/26/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email	WO #:			
Project Name: SC1 - Carver, MA	Project #: 62000793			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3050B (MOD) 6010 Metals	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SC1-S1-FR-500 (620-6825-1)	9/6/22	10 00 Eastern		Solid			X	X	1	
SC1-S1-FR-501 (620-6825-2)	9/6/22	10.05 Eastern		Solid			X	X	1	
SC1-S1-FR-503 (620-6825-3)	9/6/22	10 10 Eastern		Solid			X	X	1	
SC1-S1-FR-506 (620-6825-4)	9/6/22	10 15 Eastern		Solid			X	X	1	
SC1-N1-FR-CTLU (620-6825-5)	9/6/22	14.00 Eastern		Solid			X	X	1	
SC1-N2-FR-CTLU (620-6825-6)	9/6/22	14 00 Eastern		Solid			X	X	1	
SC1-N6-FR-P100 (620-6825-7)	9/6/22	11:35 Eastern		Solid			X	X	1	
SC1-N6-FR-P101 (620-6825-8)	9/6/22	11.40 Eastern		Solid			X	X	1	
SC1-N6-FR-P103 (620-6825-9)	9/6/22	11 45 Eastern		Solid			X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
		9/16/22 18:16				
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
					9-17-22	
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
					855	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Huntley, Agnes R	Carrier Tracking No(s):	COC No: 620-6311.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Agnes Huntley@et.eurofinsus.com	State of Origin: Massachusetts	Page: Page 2 of 3
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Massachusetts		Job #: 620-6825-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 9/26/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: SC1 - Carver, MA	Project #: 62000793			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3050B (MOD) 6010 Metals	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SC1-N6-FR-P106 (620-6825-10)	9/6/22	11.50 Eastern		Solid			X	X	1	
SC1-N6-FR-P200 (620-6825-11)	9/6/22	12:10 Eastern		Solid			X	X	1	
SC1-N6-FR-P201 (620-6825-12)	9/6/22	12 15 Eastern		Solid			X	X	1	
SC1-N6-FR-P203 (620-6825-13)	9/6/22	12 20 Eastern		Solid			X	X	1	
SC1-N6-FR-P206 (620-6825-14)	9/6/22	12.25 Eastern		Solid			X	X	1	
SC1-N6-FR-P300 (620-6825-15)	9/6/22	13 30 Eastern		Solid			X	X	1	
SC1-N6-FR-P301 (620-6825-16)	9/6/22	13.35 Eastern		Solid			X	X	1	
SC1-N6-FR-P303 (620-6825-17)	9/6/22	13 40 Eastern		Solid			X	X	1	
SC1-N6-FR-P306 (620-6825-18)	9/6/22	13.45 Eastern		Solid			X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 9/16/22 1816	Company: EUG	Received by: FedEx	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by: DW	Date/Time 9-17-22 855	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Huntley, Agnes R	Carrier Tracking No(s)	COC No: 620-6311.3
Client Contact: Shipping/Receiving	Phone	E-Mail: Agnes.Huntley@et eurofinsus.com	State of Origin: Massachusetts	Page: Page 3 of 3
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Massachusetts		Job #: 620-6825-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 9/26/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email	WO #:			
Project Name: SC1 - Carver, MA	Project #: 62000793			
Site	SSOW#:			

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3050B (MOD) 6010 Metals	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SC1-N4-FR-P400 (620-6825-19)	9/7/22	09:30 Eastern		Solid			X	X	1	
SC1-N4-FR-P401 (620-6825-20)	9/7/22	09.35 Eastern		Solid			X	X	1	
SC1-N4-FR-P403 (620-6825-21)	9/7/22	09.40 Eastern		Solid			X	X	1	
SC1-N4-FR-P406 (620-6825-22)	9/7/22	09.45 Eastern		Solid			X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
[signature]	9/16/22 1818	EUG	FedEx		
Relinquished by:	Date/Time	Company	Received by: DW	Date/Time 9-17-22 855	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc.

Job Number: 620-6825-1

Login Number: 6825
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins New England

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc.

Job Number: 620-6825-1

Login Number: 6825
List Number: 2
Creator: Watson, Debbie

List Source: Eurofins Pittsburgh
List Creation: 09/17/22 06:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing New England



ANALYTICAL REPORT

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-6826-1
Client Project/Site: SC-3 - Carver, MA

For:
Mabbett & Associates, Inc.
105 Central Street
Suite 4100
Stoneham, Massachusetts 02180

Attn: Mr. Stephen Vetere

Authorized for release by:
10/3/2022 2:57:11 PM

Agnes Huntley, Project Manager
(401)372-3482
Agnes.Huntley@et.eurofinsus.com

LINKS
Review your project results through my EOL
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Qualifiers

Metals

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-6826-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-6826-1

Comments
No additional comments.

Receipt
The samples were received on 9/7/2022 6:24 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

Metals
Method 6010C: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 180-413469 and analytical batch 180-413693 was outside the control limits for arsenic, chromium and copper . Sample non-homogeneity are suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method Moisture: The sample duplicate precision for the following sample associated with analytical batch 180-413244 was outside control limits: (620-6825-A-12 DU). Non-homogeneity of the sample matrix is suspected. Sample was cranberries, and the RPD was within 20%, so results can be reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-S2-FR-P100 — **Lab Sample ID: 620-6826-1**

No Detections.

Client Sample ID: SC3-S2-FR-P101 — **Lab Sample ID: 620-6826-2**

No Detections.

Client Sample ID: SC3-S2-FR-P103 — **Lab Sample ID: 620-6826-3**

No Detections.

Client Sample ID: SC3-S2-FR-P106 — **Lab Sample ID: 620-6826-4**

No Detections.

Client Sample ID: SC3-S2-FR-P200 — **Lab Sample ID: 620-6826-5**

No Detections.

Client Sample ID: SC3-S2-FR-P201 — **Lab Sample ID: 620-6826-6**

No Detections.

Client Sample ID: SC3-S2-FR-P203 — **Lab Sample ID: 620-6826-7**

No Detections.

Client Sample ID: SC3-S2-FR-P206 — **Lab Sample ID: 620-6826-8**

No Detections.

Client Sample ID: SC3-S2-FR-P300 — **Lab Sample ID: 620-6826-9**

No Detections.

Client Sample ID: SC3-S2-FR-P301 — **Lab Sample ID: 620-6826-10**

No Detections.

Client Sample ID: SC3-S2-FR-P303 — **Lab Sample ID: 620-6826-11**

No Detections.

Client Sample ID: SC3-S2-FR-P306 — **Lab Sample ID: 620-6826-12**

No Detections.

Client Sample ID: SC3-M1-FR-P500 — **Lab Sample ID: 620-6826-13**

No Detections.

Client Sample ID: SC3-M1-FR-P501 — **Lab Sample ID: 620-6826-14**

No Detections.

Client Sample ID: SC3-M1-FR-P503 — **Lab Sample ID: 620-6826-15**

No Detections.

Client Sample ID: SC3-M1-FR-P506 — **Lab Sample ID: 620-6826-16**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins New England

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-N4-FR-CTLP — Lab Sample ID: 620-6826-17

No Detections.

Client Sample ID: SC3-N1-FR-CTLP — Lab Sample ID: 620-6826-18

No Detections.

Client Sample ID: SC3-N3-FR-P400 — Lab Sample ID: 620-6826-19

No Detections.

Client Sample ID: SC3-N3-FR-P401 — Lab Sample ID: 620-6826-20

No Detections.

Client Sample ID: SC3-N3-FR-P403 — Lab Sample ID: 620-6826-21

No Detections.

Client Sample ID: SC3-N3-FR-P406 — Lab Sample ID: 620-6826-22

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: SC3-S2-FR-P100

Lab Sample ID: 620-6826-1
Date Collected: 09/07/22 10:25
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.9

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	F2	6.40		mg/Kg	☼	09/28/22 12:10	09/29/22 14:03	1
Chromium	ND	F2	3.20		mg/Kg	☼	09/28/22 12:10	09/29/22 14:03	1
Copper	ND	F2	16.0		mg/Kg	☼	09/28/22 12:10	09/29/22 14:03	1

Client Sample ID: SC3-S2-FR-P101

Lab Sample ID: 620-6826-2
Date Collected: 09/07/22 10:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.8

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.52		mg/Kg	☼	09/28/22 12:10	09/29/22 14:29	1
Chromium	ND		3.26		mg/Kg	☼	09/28/22 12:10	09/29/22 14:29	1
Copper	ND		16.3		mg/Kg	☼	09/28/22 12:10	09/29/22 14:29	1

Client Sample ID: SC3-S2-FR-P103

Lab Sample ID: 620-6826-3
Date Collected: 09/07/22 10:35
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.4

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.30		mg/Kg	☼	09/28/22 12:10	09/29/22 14:34	1
Chromium	ND		4.15		mg/Kg	☼	09/28/22 12:10	09/29/22 14:34	1
Copper	ND		20.8		mg/Kg	☼	09/28/22 12:10	09/29/22 14:34	1

Client Sample ID: SC3-S2-FR-P106

Lab Sample ID: 620-6826-4
Date Collected: 09/07/22 10:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.1

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.11		mg/Kg	☼	09/28/22 12:10	09/29/22 14:50	1
Chromium	ND		4.05		mg/Kg	☼	09/28/22 12:10	09/29/22 14:50	1
Copper	ND		20.3		mg/Kg	☼	09/28/22 12:10	09/29/22 14:50	1

Client Sample ID: SC3-S2-FR-P200

Lab Sample ID: 620-6826-5
Date Collected: 09/07/22 11:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.3

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.00		mg/Kg	☼	09/28/22 12:10	09/29/22 14:55	1
Chromium	ND		4.00		mg/Kg	☼	09/28/22 12:10	09/29/22 14:55	1
Copper	ND		20.0		mg/Kg	☼	09/28/22 12:10	09/29/22 14:55	1

Client Sample ID: SC3-S2-FR-P201

Lab Sample ID: 620-6826-6
Date Collected: 09/07/22 11:05
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.6

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.95		mg/Kg	☼	09/28/22 12:10	09/29/22 15:00	1
Chromium	ND		2.97		mg/Kg	☼	09/28/22 12:10	09/29/22 15:00	1

Client Sample ID: SC3-S2-FR-P201

Lab Sample ID: 620-6826-6
Date Collected: 09/07/22 11:05
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.6

Method: EPA 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		14.9		mg/Kg	☼	09/28/22 12:10	09/29/22 15:00	1

Client Sample ID: SC3-S2-FR-P203

Lab Sample ID: 620-6826-7
Date Collected: 09/07/22 11:10
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.8

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.16		mg/Kg	☼	09/28/22 12:10	09/29/22 15:06	1
Chromium	ND		2.58		mg/Kg	☼	09/28/22 12:10	09/29/22 15:06	1
Copper	ND		12.9		mg/Kg	☼	09/28/22 12:10	09/29/22 15:06	1

Client Sample ID: SC3-S2-FR-P206

Lab Sample ID: 620-6826-8
Date Collected: 09/07/22 11:15
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.7

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.45		mg/Kg	☼	09/28/22 12:10	09/29/22 15:11	1
Chromium	ND		2.73		mg/Kg	☼	09/28/22 12:10	09/29/22 15:11	1
Copper	ND		13.6		mg/Kg	☼	09/28/22 12:10	09/29/22 15:11	1

Client Sample ID: SC3-S2-FR-P300

Lab Sample ID: 620-6826-9
Date Collected: 09/07/22 11:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.7

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.61		mg/Kg	☼	09/28/22 12:10	09/29/22 15:17	1
Chromium	ND		3.31		mg/Kg	☼	09/28/22 12:10	09/29/22 15:17	1
Copper	ND		16.5		mg/Kg	☼	09/28/22 12:10	09/29/22 15:17	1

Client Sample ID: SC3-S2-FR-P301

Lab Sample ID: 620-6826-10
Date Collected: 09/07/22 11:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.16		mg/Kg	☼	09/28/22 12:10	09/29/22 15:22	1
Chromium	ND		3.58		mg/Kg	☼	09/28/22 12:10	09/29/22 15:22	1
Copper	ND		17.9		mg/Kg	☼	09/28/22 12:10	09/29/22 15:22	1

Client Sample ID: SC3-S2-FR-P303

Lab Sample ID: 620-6826-11
Date Collected: 09/07/22 11:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.4

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.38		mg/Kg	☼	09/28/22 12:10	09/29/22 15:27	1
Chromium	ND		3.19		mg/Kg	☼	09/28/22 12:10	09/29/22 15:27	1
Copper	ND		16.0		mg/Kg	☼	09/28/22 12:10	09/29/22 15:27	1

Client Sample ID: SC3-S2-FR-P306

Lab Sample ID: 620-6826-12
Date Collected: 09/07/22 11:55
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.9

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.18		mg/Kg	☼	09/28/22 12:10	09/29/22 15:33	1
Chromium	ND		3.59		mg/Kg	☼	09/28/22 12:10	09/29/22 15:33	1
Copper	ND		17.9		mg/Kg	☼	09/28/22 12:10	09/29/22 15:33	1

Client Sample ID: SC3-M1-FR-P500

Lab Sample ID: 620-6826-13
Date Collected: 09/07/22 12:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.5

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.41		mg/Kg	☼	09/28/22 12:10	09/29/22 15:48	1
Chromium	ND		3.21		mg/Kg	☼	09/28/22 12:10	09/29/22 15:48	1
Copper	ND		16.0		mg/Kg	☼	09/28/22 12:10	09/29/22 15:48	1

Client Sample ID: SC3-M1-FR-P501

Lab Sample ID: 620-6826-14
Date Collected: 09/07/22 12:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.40		mg/Kg	☼	09/28/22 12:10	09/29/22 15:54	1
Chromium	ND		2.70		mg/Kg	☼	09/28/22 12:10	09/29/22 15:54	1
Copper	ND		13.5		mg/Kg	☼	09/28/22 12:10	09/29/22 15:54	1

Client Sample ID: SC3-M1-FR-P503

Lab Sample ID: 620-6826-15
Date Collected: 09/07/22 12:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.9

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.40		mg/Kg	☼	09/28/22 12:10	09/29/22 15:59	1
Chromium	ND		4.20		mg/Kg	☼	09/28/22 12:10	09/29/22 15:59	1
Copper	ND		21.0		mg/Kg	☼	09/28/22 12:10	09/29/22 15:59	1

Client Sample ID: SC3-M1-FR-P506

Lab Sample ID: 620-6826-16
Date Collected: 09/07/22 12:55
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.68		mg/Kg	☼	09/28/22 12:10	09/29/22 16:05	1
Chromium	ND		3.84		mg/Kg	☼	09/28/22 12:10	09/29/22 16:05	1
Copper	ND		19.2		mg/Kg	☼	09/28/22 12:10	09/29/22 16:05	1

Client Sample ID: SC3-N4-FR-CTLP

Lab Sample ID: 620-6826-17
Date Collected: 09/07/22 13:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.8

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.22		mg/Kg	☼	09/28/22 12:10	09/29/22 16:10	1
Chromium	ND		3.61		mg/Kg	☼	09/28/22 12:10	09/29/22 16:10	1

Client Sample ID: SC3-N4-FR-CTLP
Lab Sample ID: 620-6826-17
Date Collected: 09/07/22 13:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.8

Method: EPA 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		18.0		mg/Kg	☼	09/28/22 12:10	09/29/22 16:10	1

Client Sample ID: SC3-N1-FR-CTLP
Lab Sample ID: 620-6826-18
Date Collected: 09/07/22 13:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.8

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		4.62		mg/Kg	☼	09/28/22 12:10	09/29/22 16:15	1
Chromium	ND		2.31		mg/Kg	☼	09/28/22 12:10	09/29/22 16:15	1
Copper	ND		11.5		mg/Kg	☼	09/28/22 12:10	09/29/22 16:15	1

Client Sample ID: SC3-N3-FR-P400
Lab Sample ID: 620-6826-19
Date Collected: 09/07/22 14:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		8.45		mg/Kg	☼	09/28/22 12:10	09/29/22 16:21	1
Chromium	ND		4.22		mg/Kg	☼	09/28/22 12:10	09/29/22 16:21	1
Copper	ND		21.1		mg/Kg	☼	09/28/22 12:10	09/29/22 16:21	1

Client Sample ID: SC3-N3-FR-P401
Lab Sample ID: 620-6826-20
Date Collected: 09/07/22 14:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		4.87		mg/Kg	☼	09/28/22 12:10	09/29/22 16:26	1
Chromium	ND		2.44		mg/Kg	☼	09/28/22 12:10	09/29/22 16:26	1
Copper	ND		12.2		mg/Kg	☼	09/28/22 12:10	09/29/22 16:26	1

Client Sample ID: SC3-N3-FR-P403
Lab Sample ID: 620-6826-21
Date Collected: 09/07/22 14:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.3

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.41		mg/Kg	☼	09/28/22 12:13	09/29/22 10:32	1
Chromium	ND		2.71		mg/Kg	☼	09/28/22 12:13	09/29/22 10:32	1
Copper	ND		13.5		mg/Kg	☼	09/28/22 12:13	09/29/22 10:32	1

Client Sample ID: SC3-N3-FR-P406
Lab Sample ID: 620-6826-22
Date Collected: 09/07/22 14:55
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Method: EPA 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		4.99		mg/Kg	☼	09/28/22 12:13	09/29/22 10:37	1
Chromium	ND		2.49		mg/Kg	☼	09/28/22 12:13	09/29/22 10:37	1
Copper	ND		12.5		mg/Kg	☼	09/28/22 12:13	09/29/22 10:37	1

Method: EPA 6010C - Metals (ICP)

Lab Sample ID: MB 180-413469/1-A
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 413469

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.00		mg/Kg		09/28/22 12:10	09/29/22 13:53	1
Chromium	ND		0.500		mg/Kg		09/28/22 12:10	09/29/22 13:53	1
Copper	ND		2.50		mg/Kg		09/28/22 12:10	09/29/22 13:53	1

Lab Sample ID: LCS 180-413469/2-A
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413469

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	97.24		mg/Kg		97	80 - 120		
Chromium			50.0	47.90		mg/Kg		96	80 - 120		
Copper			50.0	47.26		mg/Kg		95	80 - 120		

Lab Sample ID: 620-6826-1 MS
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: SC3-S2-FR-P100
Prep Type: Total/NA
Prep Batch: 413469

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	ND	F2	693	545.7		mg/Kg	☼	79	75 - 125		
Chromium	ND	F2	347	265.8		mg/Kg	☼	77	75 - 125		
Copper	ND	F2	347	271.9		mg/Kg	☼	78	75 - 125		

Lab Sample ID: 620-6826-1 MSD
Matrix: Solid
Analysis Batch: 413693

Client Sample ID: SC3-S2-FR-P100
Prep Type: Total/NA
Prep Batch: 413469

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND	F2	514	406.7	F2	mg/Kg	☼	79	75 - 125	29	20
Chromium	ND	F2	257	197.6	F2	mg/Kg	☼	77	75 - 125	29	20
Copper	ND	F2	257	205.0	F2	mg/Kg	☼	80	75 - 125	28	20

Lab Sample ID: MB 180-413470/1-A
Matrix: Solid
Analysis Batch: 413611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 413470

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.00		mg/Kg		09/28/22 12:13	09/29/22 08:15	1
Chromium	ND		0.500		mg/Kg		09/28/22 12:13	09/29/22 08:15	1
Copper	ND		2.50		mg/Kg		09/28/22 12:13	09/29/22 08:15	1

Lab Sample ID: LCS 180-413470/2-A
Matrix: Solid
Analysis Batch: 413611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413470

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	93.54		mg/Kg		94	80 - 120		
Chromium			50.0	46.93		mg/Kg		94	80 - 120		
Copper			50.0	46.14		mg/Kg		92	80 - 120		

Metals

Prep Batch: 413469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6826-1	SC3-S2-FR-P100	Total/NA	Solid	3050B	
620-6826-2	SC3-S2-FR-P101	Total/NA	Solid	3050B	
620-6826-3	SC3-S2-FR-P103	Total/NA	Solid	3050B	
620-6826-4	SC3-S2-FR-P106	Total/NA	Solid	3050B	
620-6826-5	SC3-S2-FR-P200	Total/NA	Solid	3050B	
620-6826-6	SC3-S2-FR-P201	Total/NA	Solid	3050B	
620-6826-7	SC3-S2-FR-P203	Total/NA	Solid	3050B	
620-6826-8	SC3-S2-FR-P206	Total/NA	Solid	3050B	
620-6826-9	SC3-S2-FR-P300	Total/NA	Solid	3050B	
620-6826-10	SC3-S2-FR-P301	Total/NA	Solid	3050B	
620-6826-11	SC3-S2-FR-P303	Total/NA	Solid	3050B	
620-6826-12	SC3-S2-FR-P306	Total/NA	Solid	3050B	
620-6826-13	SC3-M1-FR-P500	Total/NA	Solid	3050B	
620-6826-14	SC3-M1-FR-P501	Total/NA	Solid	3050B	
620-6826-15	SC3-M1-FR-P503	Total/NA	Solid	3050B	
620-6826-16	SC3-M1-FR-P506	Total/NA	Solid	3050B	
620-6826-17	SC3-N4-FR-CTLP	Total/NA	Solid	3050B	
620-6826-18	SC3-N1-FR-CTLP	Total/NA	Solid	3050B	
620-6826-19	SC3-N3-FR-P400	Total/NA	Solid	3050B	
620-6826-20	SC3-N3-FR-P401	Total/NA	Solid	3050B	
MB 180-413469/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-413469/2-A	Lab Control Sample	Total/NA	Solid	3050B	
620-6826-1 MS	SC3-S2-FR-P100	Total/NA	Solid	3050B	
620-6826-1 MSD	SC3-S2-FR-P100	Total/NA	Solid	3050B	

Prep Batch: 413470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6826-21	SC3-N3-FR-P403	Total/NA	Solid	3050B	
620-6826-22	SC3-N3-FR-P406	Total/NA	Solid	3050B	
MB 180-413470/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-413470/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 413611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6826-21	SC3-N3-FR-P403	Total/NA	Solid	EPA 6010C	413470
620-6826-22	SC3-N3-FR-P406	Total/NA	Solid	EPA 6010C	413470
MB 180-413470/1-A	Method Blank	Total/NA	Solid	EPA 6010C	413470
LCS 180-413470/2-A	Lab Control Sample	Total/NA	Solid	EPA 6010C	413470

Analysis Batch: 413693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6826-1	SC3-S2-FR-P100	Total/NA	Solid	EPA 6010C	413469
620-6826-2	SC3-S2-FR-P101	Total/NA	Solid	EPA 6010C	413469
620-6826-3	SC3-S2-FR-P103	Total/NA	Solid	EPA 6010C	413469
620-6826-4	SC3-S2-FR-P106	Total/NA	Solid	EPA 6010C	413469
620-6826-5	SC3-S2-FR-P200	Total/NA	Solid	EPA 6010C	413469
620-6826-6	SC3-S2-FR-P201	Total/NA	Solid	EPA 6010C	413469
620-6826-7	SC3-S2-FR-P203	Total/NA	Solid	EPA 6010C	413469
620-6826-8	SC3-S2-FR-P206	Total/NA	Solid	EPA 6010C	413469
620-6826-9	SC3-S2-FR-P300	Total/NA	Solid	EPA 6010C	413469
620-6826-10	SC3-S2-FR-P301	Total/NA	Solid	EPA 6010C	413469

Metals (Continued)

Analysis Batch: 413693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6826-11	SC3-S2-FR-P303	Total/NA	Solid	EPA 6010C	413469
620-6826-12	SC3-S2-FR-P306	Total/NA	Solid	EPA 6010C	413469
620-6826-13	SC3-M1-FR-P500	Total/NA	Solid	EPA 6010C	413469
620-6826-14	SC3-M1-FR-P501	Total/NA	Solid	EPA 6010C	413469
620-6826-15	SC3-M1-FR-P503	Total/NA	Solid	EPA 6010C	413469
620-6826-16	SC3-M1-FR-P506	Total/NA	Solid	EPA 6010C	413469
620-6826-17	SC3-N4-FR-CTLP	Total/NA	Solid	EPA 6010C	413469
620-6826-18	SC3-N1-FR-CTLP	Total/NA	Solid	EPA 6010C	413469
620-6826-19	SC3-N3-FR-P400	Total/NA	Solid	EPA 6010C	413469
620-6826-20	SC3-N3-FR-P401	Total/NA	Solid	EPA 6010C	413469
MB 180-413469/1-A	Method Blank	Total/NA	Solid	EPA 6010C	413469
LCS 180-413469/2-A	Lab Control Sample	Total/NA	Solid	EPA 6010C	413469
620-6826-1 MS	SC3-S2-FR-P100	Total/NA	Solid	EPA 6010C	413469
620-6826-1 MSD	SC3-S2-FR-P100	Total/NA	Solid	EPA 6010C	413469

General Chemistry

Analysis Batch: 413244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6826-1	SC3-S2-FR-P100	Total/NA	Solid	2540G	
620-6826-2	SC3-S2-FR-P101	Total/NA	Solid	2540G	
620-6826-3	SC3-S2-FR-P103	Total/NA	Solid	2540G	
620-6826-4	SC3-S2-FR-P106	Total/NA	Solid	2540G	
620-6826-5	SC3-S2-FR-P200	Total/NA	Solid	2540G	
620-6826-6	SC3-S2-FR-P201	Total/NA	Solid	2540G	
620-6826-7	SC3-S2-FR-P203	Total/NA	Solid	2540G	
620-6826-8	SC3-S2-FR-P206	Total/NA	Solid	2540G	
620-6826-9	SC3-S2-FR-P300	Total/NA	Solid	2540G	

Analysis Batch: 413246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6826-10	SC3-S2-FR-P301	Total/NA	Solid	2540G	
620-6826-11	SC3-S2-FR-P303	Total/NA	Solid	2540G	
620-6826-12	SC3-S2-FR-P306	Total/NA	Solid	2540G	
620-6826-13	SC3-M1-FR-P500	Total/NA	Solid	2540G	
620-6826-14	SC3-M1-FR-P501	Total/NA	Solid	2540G	
620-6826-15	SC3-M1-FR-P503	Total/NA	Solid	2540G	
620-6826-16	SC3-M1-FR-P506	Total/NA	Solid	2540G	
620-6826-17	SC3-N4-FR-CTLP	Total/NA	Solid	2540G	
620-6826-18	SC3-N1-FR-CTLP	Total/NA	Solid	2540G	
620-6826-19	SC3-N3-FR-P400	Total/NA	Solid	2540G	
620-6826-20	SC3-N3-FR-P401	Total/NA	Solid	2540G	
620-6826-21	SC3-N3-FR-P403	Total/NA	Solid	2540G	
620-6826-22	SC3-N3-FR-P406	Total/NA	Solid	2540G	
620-6826-10 DU	SC3-S2-FR-P301	Total/NA	Solid	2540G	
620-6826-22 DU	SC3-N3-FR-P406	Total/NA	Solid	2540G	

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-S2-FR-P100
Date Collected: 09/07/22 10:25
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P100
Date Collected: 09/07/22 10:25
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-1
Matrix: Solid
Percent Solids: 10.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 14:03

Client Sample ID: SC3-S2-FR-P101
Date Collected: 09/07/22 10:30
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P101
Date Collected: 09/07/22 10:30
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-2
Matrix: Solid
Percent Solids: 10.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 14:29

Client Sample ID: SC3-S2-FR-P103
Date Collected: 09/07/22 10:35
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P103
Date Collected: 09/07/22 10:35
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-3
Matrix: Solid
Percent Solids: 10.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 14:34

Client Sample ID: SC3-S2-FR-P106
Date Collected: 09/07/22 10:40
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-S2-FR-P106
Lab Sample ID: 620-6826-4
Date Collected: 09/07/22 10:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 14:50

Client Sample ID: SC3-S2-FR-P200
Lab Sample ID: 620-6826-5
Date Collected: 09/07/22 11:00
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P200
Lab Sample ID: 620-6826-5
Date Collected: 09/07/22 11:00
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 14:55

Client Sample ID: SC3-S2-FR-P201
Lab Sample ID: 620-6826-6
Date Collected: 09/07/22 11:05
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P201
Lab Sample ID: 620-6826-6
Date Collected: 09/07/22 11:05
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:00

Client Sample ID: SC3-S2-FR-P203
Lab Sample ID: 620-6826-7
Date Collected: 09/07/22 11:10
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P203
Lab Sample ID: 620-6826-7
Date Collected: 09/07/22 11:10
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:06

Client Sample ID: SC3-S2-FR-P206
Lab Sample ID: 620-6826-8
Date Collected: 09/07/22 11:15
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P206
Lab Sample ID: 620-6826-8
Date Collected: 09/07/22 11:15
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:11

Client Sample ID: SC3-S2-FR-P300
Lab Sample ID: 620-6826-9
Date Collected: 09/07/22 11:40
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413244	ELS	EET PIT	09/26/22 16:40

Client Sample ID: SC3-S2-FR-P300
Lab Sample ID: 620-6826-9
Date Collected: 09/07/22 11:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:17

Client Sample ID: SC3-S2-FR-P301
Lab Sample ID: 620-6826-10
Date Collected: 09/07/22 11:45
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-S2-FR-P301
Lab Sample ID: 620-6826-10
Date Collected: 09/07/22 11:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:22

Client Sample ID: SC3-S2-FR-P303
Lab Sample ID: 620-6826-11
Date Collected: 09/07/22 11:50
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-S2-FR-P303
Lab Sample ID: 620-6826-11
Date Collected: 09/07/22 11:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:27

Client Sample ID: SC3-S2-FR-P306
Lab Sample ID: 620-6826-12
Date Collected: 09/07/22 11:55
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-S2-FR-P306
Lab Sample ID: 620-6826-12
Date Collected: 09/07/22 11:55
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:33

Client Sample ID: SC3-M1-FR-P500
Lab Sample ID: 620-6826-13
Date Collected: 09/07/22 12:40
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-M1-FR-P500
Lab Sample ID: 620-6826-13
Date Collected: 09/07/22 12:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:48

Client Sample ID: SC3-M1-FR-P501
Lab Sample ID: 620-6826-14
Date Collected: 09/07/22 12:45
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-M1-FR-P501
Lab Sample ID: 620-6826-14
Date Collected: 09/07/22 12:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:54

Client Sample ID: SC3-M1-FR-P503
Lab Sample ID: 620-6826-15
Date Collected: 09/07/22 12:50
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-M1-FR-P503
Lab Sample ID: 620-6826-15
Date Collected: 09/07/22 12:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 9.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 15:59

Client Sample ID: SC3-M1-FR-P506
Lab Sample ID: 620-6826-16
Date Collected: 09/07/22 12:55
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-M1-FR-P506
Lab Sample ID: 620-6826-16
Date Collected: 09/07/22 12:55
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 16:05

Client Sample ID: SC3-N4-FR-CTLP
Lab Sample ID: 620-6826-17
Date Collected: 09/07/22 13:30
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-N4-FR-CTLP
Lab Sample ID: 620-6826-17
Date Collected: 09/07/22 13:30
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 16:10

Client Sample ID: SC3-N1-FR-CTLP
Lab Sample ID: 620-6826-18
Date Collected: 09/07/22 13:40
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-N1-FR-CTLP
Lab Sample ID: 620-6826-18
Date Collected: 09/07/22 13:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 16:15

Client Sample ID: SC3-N3-FR-P400
Lab Sample ID: 620-6826-19
Date Collected: 09/07/22 14:40
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-N3-FR-P400
Lab Sample ID: 620-6826-19
Date Collected: 09/07/22 14:40
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 16:21

Client Sample ID: SC3-N3-FR-P401
Lab Sample ID: 620-6826-20
Date Collected: 09/07/22 14:45
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-N3-FR-P401
Lab Sample ID: 620-6826-20
Date Collected: 09/07/22 14:45
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 10.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413469	NAF	EET PIT	09/28/22 12:10
Total/NA	Analysis	EPA 6010C		1	413693	RJR	EET PIT	09/29/22 16:26

Client Sample ID: SC3-N3-FR-P403
Lab Sample ID: 620-6826-21
Date Collected: 09/07/22 14:50
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Client Sample ID: SC3-N3-FR-P403
Lab Sample ID: 620-6826-21
Date Collected: 09/07/22 14:50
Matrix: Solid
Date Received: 09/07/22 18:24
Percent Solids: 11.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413470	NAF	EET PIT	09/28/22 12:13
Total/NA	Analysis	EPA 6010C		1	413611	RJG	EET PIT	09/29/22 10:32

Client Sample ID: SC3-N3-FR-P406
Lab Sample ID: 620-6826-22
Date Collected: 09/07/22 14:55
Matrix: Solid
Date Received: 09/07/22 18:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	413246	ELS	EET PIT	09/26/22 16:53

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Client Sample ID: SC3-N3-FR-P406
Date Collected: 09/07/22 14:55
Date Received: 09/07/22 18:24

Lab Sample ID: 620-6826-22
Matrix: Solid
Percent Solids: 11.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			413470	NAF	EET PIT	09/28/22 12:13
Total/NA	Analysis	EPA 6010C		1	413611	RJG	EET PIT	09/29/22 10:37

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22 *
California	State	2891	04-30-23
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-23
Georgia	State	PA 02-00416	04-30-23
Illinois	NELAP	004375	06-30-23
Kansas	NELAP	E-10350	03-31-23
Kentucky (UST)	State	162013	04-30-23
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-22
New Hampshire	NELAP	2030	04-04-23
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-01-23
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-23
Oregon	NELAP	PA-2151	02-07-23
Pennsylvania	NELAP	02-00416	04-30-23
Rhode Island	State	LAO00362	12-31-22
South Carolina	State	89014	04-20-23
Texas	NELAP	T104704528	03-31-23
USDA	US Federal Programs	P330-16-00211	06-21-24
Utah	NELAP	PA001462019-8	05-31-23
Virginia	NELAP	10043	09-14-23
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Method	Method Description	Protocol	Laboratory
EPA 6010C	Metals (ICP)	SW846	EET PIT
2540G	SM 2540G	SM22	EET PIT
3050B	Preparation, Metals	SW846	EET PIT

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Mabbett & Associates, Inc.
Project/Site: SC-3 - Carver, MA

Job ID: 620-6826-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-6826-1	SC3-S2-FR-P100	Solid	09/07/22 10:25	09/07/22 18:24
620-6826-2	SC3-S2-FR-P101	Solid	09/07/22 10:30	09/07/22 18:24
620-6826-3	SC3-S2-FR-P103	Solid	09/07/22 10:35	09/07/22 18:24
620-6826-4	SC3-S2-FR-P106	Solid	09/07/22 10:40	09/07/22 18:24
620-6826-5	SC3-S2-FR-P200	Solid	09/07/22 11:00	09/07/22 18:24
620-6826-6	SC3-S2-FR-P201	Solid	09/07/22 11:05	09/07/22 18:24
620-6826-7	SC3-S2-FR-P203	Solid	09/07/22 11:10	09/07/22 18:24
620-6826-8	SC3-S2-FR-P206	Solid	09/07/22 11:15	09/07/22 18:24
620-6826-9	SC3-S2-FR-P300	Solid	09/07/22 11:40	09/07/22 18:24
620-6826-10	SC3-S2-FR-P301	Solid	09/07/22 11:45	09/07/22 18:24
620-6826-11	SC3-S2-FR-P303	Solid	09/07/22 11:50	09/07/22 18:24
620-6826-12	SC3-S2-FR-P306	Solid	09/07/22 11:55	09/07/22 18:24
620-6826-13	SC3-M1-FR-P500	Solid	09/07/22 12:40	09/07/22 18:24
620-6826-14	SC3-M1-FR-P501	Solid	09/07/22 12:45	09/07/22 18:24
620-6826-15	SC3-M1-FR-P503	Solid	09/07/22 12:50	09/07/22 18:24
620-6826-16	SC3-M1-FR-P506	Solid	09/07/22 12:55	09/07/22 18:24
620-6826-17	SC3-N4-FR-CTLP	Solid	09/07/22 13:30	09/07/22 18:24
620-6826-18	SC3-N1-FR-CTLP	Solid	09/07/22 13:40	09/07/22 18:24
620-6826-19	SC3-N3-FR-P400	Solid	09/07/22 14:40	09/07/22 18:24
620-6826-20	SC3-N3-FR-P401	Solid	09/07/22 14:45	09/07/22 18:24
620-6826-21	SC3-N3-FR-P403	Solid	09/07/22 14:50	09/07/22 18:24
620-6826-22	SC3-N3-FR-P406	Solid	09/07/22 14:55	09/07/22 18:24

6826

620-6826 Chain of Custody

2332
405

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 23

Access COC's and Support Requests

Company Name: Mabbett

Address 105 central st stoneham MA

Phone

Project Name: ~~CAT~~ SC3

Project Location carver

Project Number: R7011054.001

Project Manager: S. Vetere

Pace Quote Name/Number: 62000768

Invoice Recipient.

Sampled By: CW

Requested Turnaround Time
7 Day ☐ 10 Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1 Day ☐ 3 Day ☐
2 Day ☐ 4-Day ☐

Data Delivery
Format. PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required. ☒
Email To: vetere@mabbett.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	total Cr, Cu, As									
01	SC3-S2-Fr-P100	9-7	~~1105~~ 1025	G	G							X									
02	SC3-S2-Fr-P101		~~1105~~ 1030									X									
03	SC3-S2-Fr-P103		~~1110~~ 1035									X									
04	SC3-S2-Fr-P106		~~1115~~ 1040									X									
05	SC3-S2-Fr-P200		1100									X									
06	SC3-S2-Fr-P201		1105									X									
07	SC3-S2-Fr-P203		1110									X									
08	SC3-S2-Fr-P206		1115									X									
09	SC3-S2-Fr-P300		1140									X									
10	SC3-S2-Fr-P301	↓	1145	↓	↓							X									

[2] Preservation Code
Courier Use Only
Total Numbe Of
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) cranberry

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

	Date/Time
Relinquished by: (signature)	9-7 1705
Received by: (signature)	9/7/22 17:07
Relinquished by: (signature)	9/8/22 0917
Received by: (signature)	9/8/22 18:24
Relinquished by: (signature)	Date/Time
Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time
Received by (signature)	Date/Time

Client Comments: cranberries

Detection Limit Requirements
MA
CT

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above
H High, M Medium, L Low; C Clean, U Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments:
2.4 to 4 2.8 #6

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform Any missing information is not the laboratory's responsibility Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable

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10/3/2022

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Eurofins

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Access COC's and Support Requests

Company Name:	Mabbett
Address:	105 Central St Stoneham MA
Phone:	781-275-6050
Project Name:	SC3
Project Location	Carver
Project Number:	R2021054.001
Project Manager:	S. Vetere
Pace Quote Name/Number:	62 0007108
Invoice Recipient.	
Sampled By	AW / DM/NP

Requested Turnaround Time			
7-Day	☐	10-Day	☐
PFAS 10-Day (std)	☐	Due Date	
Rush-Approval Required			
1 Day	☐	3 Day	☐
2 Day	☐	4-Day	☐

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter
Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter

Data Delivery

Format. PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required ☒
Email To vetere@mabbett.com
Fax To #:

PCB ONLY

SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cr, Cu, As
11	SC3-S2-Fr-P303	9-7	1150	Grab	O							X
12	SC3-S2-Fr-P306		1155									X
13	SC3-M1-Fr-P500		1240									X
14	SC3-M1-Fr-P501		1245									X
15	SC3-M1-Fr-P503		1250									X
16	SC3-M1-Fr-P506		1255									X
17	SC3-N4-Fr-CTLP		1330									X
18	SC3-N1-Fr-CTLP		1340									X
19	SC3-N3-Fr-P400		1440									X
20	SC3 N3-Fr-P401		~~1445~~ 1445									X

Relinquished by: (signature)	Date/Time: 9-7 1705	Client Comments. M1 #
Received by: (signature)	Date/Time: 9/7/21 17:05	
Relinquished by: (signature)	Date/Time: 9/7/21 17:05	
Received by: (signature)	Date/Time: 9/7/21 18:24	
Relinquished by: (signature)	Date/Time:	
Received by (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time	

Detection Limit Requirements		Special Requirements	
MA		☐	MA MCP Required
			MCP Certification Form Required
		☐	CT RCP Required
CT			RCP Certification Form Required
		☐	MA State DW Required
Other:		PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H High, M Medium, L Low; C Clean, U Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government	☐	Municipality	☐	MWRA	☐	WRTA	☐
Federal	☐	21 J	☐	School	☐		
City	☐	Brownfield	☐	MBTA	☐		

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Courier Use Only
Total Number Of
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) cranberries

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:

2.4 to 4 2.8 ~~16~~

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Eurofins

6126

Pace Analytical — Phone: 413-525-2332 — Fax: 413-525-6405 — Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

30 Spruce Street, East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name:	Mabbett
Address:	105 Central St, Stoneham MA
Phone:	781-275-6000
Project Name:	SC3
Project Location	Carver
Project Number:	R202105404 001
Project Manager:	S Vetere
Pace Quote Name/Number:	620007768
Invoice Recipient.	
Sampled By:	CW

Requested Turnaround Time			
7 Day	☐	10-Day	☐
PFAS 10-Day (std)	☐	Due Date	
Rush-Approval Required			
1 Day	☐	3 Day	☐
2-Day	☐	4-Day	☐
Data Delivery			
Format.	PDF ☒	EXCEL ☒	
Other:			
CLP Like Data Pkg Required	☒		
Email To	svetere@mabbett.com		
Fax To #:			

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter
Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter
PCB ONLY	
SOXHLET	☐
NON SOXHLET	☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Total Cu, AS, Cu
21	SC3-N3-Fr-P403	9-7	1450	Grab	O							X
22	SC3-N3-Fr-P406	9-7	1455	grab	O							X

[2] Preservation Code

Courier Use Only

Total Number Of

VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) cranberry

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	CW	Date/Time 9-7 1705
Received by: (signature)		Date/Time 9/7/22 17:05
Relinquished by: (signature)		Date/Time 9/7/22 17:05
Received by: (signature)		Date/Time 9/7/22 1854
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Client Comments.

Detection Limit Requirements

MA

CT

Other:

Special Requirements

☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above
H High, M Medium, L Low; C Clean, U Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government	☐	Municipality	☐	MWRA	☐	WRTA	☐
Federal	☐	21 J	☐	School	☐		
City	☐	Brownfield	☐	MBTA	☐		

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments.

2.4 to 4 2.8 #6

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

Eurofins | Environment Testing America

620-6826 Chain of Custody

Client Information (Sub Contract Lab)	Sampler	Lab PM: Huntley, Agnes R	11 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Agnes.Huntley@et.eurofinsus.com	Massachusetts

Company: Eurofins Environment Testing Northeast,	Accreditations Required (See note): State - Massachusetts	Job #: 620-6826-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 9/26/2022	
City: Pittsburgh	TAT Requested (days):	
State, Zip: PA, 15238		
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:	
Email	WO #:	
Project Name: SC-3 - Carver, MA	Project #: 62000793	
Site	SSOW#:	

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3050B (MOD) 6010 Metals	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SC3-S2-FR-P100 (620-6826-1)	9/7/22	10:25 Eastern		Solid			X	X	1	
SC3-S2-FR-P101 (620-6826-2)	9/7/22	10.30 Eastern		Solid			X	X	1	
SC3-S2-FR-P103 (620-6826-3)	9/7/22	10 35 Eastern		Solid			X	X	1	
SC3-S2-FR-P106 (620-6826-4)	9/7/22	10 40 Eastern		Solid			X	X	1	
SC3-S2-FR-P200 (620-6826-5)	9/7/22	11:00 Eastern		Solid			X	X	1	
SC3-S2-FR-P201 (620-6826-6)	9/7/22	11:05 Eastern		Solid			X	X	1	
SC3-S2-FR-P203 (620-6826-7)	9/7/22	11 10 Eastern		Solid			X	X	1	
SC3-S2-FR-P206 (620-6826-6)	9/7/22	11.15 Eastern		Solid			X	X	1	
SC3-S2-FR-P300 (620-6826-9)	9/7/22	11.40 Eastern		Solid			X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by.	Date	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	9/16/22 1816	Eurofins	Fed Ex		
Relinquished by:	Date/Time	Company	Received by:	Date/Time 9-17-22	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time 855	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone. 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Huntley, Agnes R	Carrier Tracking No(s)	COC No: 620-6311 2
Client Contact: Shipping/Receiving	Phone	E-Mail: Agnes.Huntley@et.eurofinsus.com	State of Origin: Massachusetts	Page: Page 2 of 3
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Massachusetts		Job #: 620-6826-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 9/26/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email	WO #:			
Project Name: SC-3 - Carver, MA	Project #: 62000793			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3050B (MOD) 6010 Metals	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SC3-S2-FR-P301 (620-6826-10)	9/7/22	11 45 Eastern		Solid			X	X	1	
SC3-S2-FR-P303 (620-6826-11)	9/7/22	11.50 Eastern		Solid			X	X	1	
SC3-S2-FR-P306 (620-6826-12)	9/7/22	11.55 Eastern		Solid			X	X	1	
SC3-M1-FR-P500 (620-6826-13)	9/7/22	12.40 Eastern		Solid			X	X	1	
SC3-M1-FR-P501 (620-6826-14)	9/7/22	12.45 Eastern		Solid			X	X	1	
SC3-M1-FR-P503 (620-6826-15)	9/7/22	12.50 Eastern		Solid			X	X	1	
SC3-M1-FR-P506 (620-6826-16)	9/7/22	12:55 Eastern		Solid			X	X	1	
SC3-N4-FR-CTLP (620-6826-17)	9/7/22	13.30 Eastern		Solid			X	X	1	
SC3-N1-FR-CTLP (620-6826-18)	9/7/22	13:40 Eastern		Solid			X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date:	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
		9/6/22 18:16	Eurofins	Fedex		
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
					9-7-22 855	
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Huntley, Agnes R	Carrier Tracking No(s):	COC No: 620-6311 3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Agnes.Huntley@et.eurofinsus.com	State of Origin: Massachusetts	Page: Page 3 of 3
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Massachusetts		Job #: 620-6826-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 9/26/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: SC-3 - Carver, MA	Project #: 62000793			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3050B (MOD) 6010 Metals	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SC3-N3-FR-P400 (620-6826-19)	9/7/22	14:40 Eastern		Solid			X	X	1	
SC3-N3-FR-P401 (620-6826-20)	9/7/22	14 45 Eastern		Solid			X	X	1	
SC3-N3-FR-P403 (620-6826-21)	9/7/22	14 50 Eastern		Solid			X	X	1	
SC3-N3-FR-P406 (620-6826-22)	9/7/22	14:55 Eastern		Solid			X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		9/16/22 18:16	ENE	FedEx		
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time: 9-17-22 8:55	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc.

Job Number: 620-6826-1

Login Number: 6826
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins New England

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc.

Job Number: 620-6826-1

Login Number: 6826
List Number: 2
Creator: Watson, Debbie

List Source: Eurofins Pittsburgh
List Creation: 09/17/22 06:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Groundwater Analytical Data Reports

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A US Department of Veterans Affairs Verified Service-Disabled Veteran-Owned Small Business
Scientists | Engineers | Program Managers

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Stephen Vetere
Mabbett & Associates, Inc.
105 Central Street
Suite 4100
Stoneham Massachusetts 02180

Generated 11/21/2022 7:30:14 PM Revision 1

JOB DESCRIPTION

Solar Carver

JOB NUMBER

620-6742-1

Eurofins New England
646 Camp Ave
North Kingstown RI 02852

myEOL

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Definitions/Glossary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Job ID: 620-6742-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-6742-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 9/19/2022. The report (revision 1) is being revised due to: Report revised to correct sample ID..

Receipt
The samples were received on 9/2/2022 3:37 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8º C.

Metals
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Client Sample ID: SC1-MW-01-090122 — Lab Sample ID: 620-6742-1

No Detections.

Client Sample ID: SC3-MW-02-090122 — Lab Sample ID: 620-6742-2

No Detections.

Client Sample ID: SC3-MW-03-090122 — Lab Sample ID: 620-6742-3

No Detections.

Client Sample ID: SC1-MW-03-090122 — Lab Sample ID: 620-6742-4

No Detections.

Client Sample ID: SC1-MW-02-090122 — Lab Sample ID: 620-6742-5

No Detections.

Client Sample ID: SC3-MW-01-090122 — Lab Sample ID: 620-6742-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Client Sample ID: SC1-MW-01-090122
Lab Sample ID: 620-6742-1
Date Collected: 09/01/22 12:00
Matrix: Water
Date Received: 09/02/22 15:37

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00400		mg/L		09/06/22 16:28	09/14/22 21:35	1
Chromium	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:35	1
Copper	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:35	1

Client Sample ID: SC3-MW-02-090122
Lab Sample ID: 620-6742-2
Date Collected: 09/01/22 13:30
Matrix: Water
Date Received: 09/02/22 15:37

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00400		mg/L		09/06/22 16:28	09/14/22 21:42	1
Chromium	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:42	1
Copper	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:42	1

Client Sample ID: SC3-MW-03-090122
Lab Sample ID: 620-6742-3
Date Collected: 09/01/22 14:30
Matrix: Water
Date Received: 09/02/22 15:37

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00400		mg/L		09/06/22 16:28	09/14/22 21:49	1
Chromium	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:49	1
Copper	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:49	1

Client Sample ID: SC1-MW-03-090122
Lab Sample ID: 620-6742-4
Date Collected: 09/01/22 10:35
Matrix: Water
Date Received: 09/02/22 15:37

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00400		mg/L		09/06/22 16:28	09/14/22 21:56	1
Chromium	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:56	1
Copper	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:56	1

Client Sample ID: SC1-MW-02-090122
Lab Sample ID: 620-6742-5
Date Collected: 09/01/22 12:15
Matrix: Water
Date Received: 09/02/22 15:37

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00400		mg/L		09/06/22 16:28	09/14/22 22:03	1
Chromium	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 22:03	1
Copper	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 22:03	1

Client Sample ID: SC3-MW-01-090122
Lab Sample ID: 620-6742-6
Date Collected: 09/01/22 14:05
Matrix: Water
Date Received: 09/02/22 15:37

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00400		mg/L		09/06/22 16:28	09/14/22 22:10	1
Chromium	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 22:10	1

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Client Sample ID: SC3-MW-01-090122
Date Collected: 09/01/22 14:05
Date Received: 09/02/22 15:37

Lab Sample ID: 620-6742-6
Matrix: Water

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 22:10	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 620-14904/1-A
Matrix: Water
Analysis Batch: 15055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14904

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00400		mg/L		09/06/22 16:28	09/14/22 21:14	1
Chromium	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:14	1
Copper	ND		0.00500		mg/L		09/06/22 16:28	09/14/22 21:14	1

Lab Sample ID: LCS 620-14904/2-A
Matrix: Water
Analysis Batch: 15055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14904

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			1.25	1.363		mg/L		109	80 - 120		
Chromium			1.25	1.353		mg/L		108	80 - 120		
Copper			1.25	1.366		mg/L		109	80 - 120		

Lab Sample ID: LCSD 620-14904/3-A
Matrix: Water
Analysis Batch: 15055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14904

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic			1.25	1.317		mg/L		105	80 - 120	3	20
Chromium			1.25	1.312		mg/L		105	80 - 120	3	20
Copper			1.25	1.314		mg/L		105	80 - 120	4	20

QC Association Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Metals

Prep Batch: 14904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6742-1	SC1-MW-01-090122	Total/NA	Water	3005A	
620-6742-2	SC3-MW-02-090122	Total/NA	Water	3005A	
620-6742-3	SC3-MW-03-090122	Total/NA	Water	3005A	
620-6742-4	SC1-MW-03-090122	Total/NA	Water	3005A	
620-6742-5	SC1-MW-02-090122	Total/NA	Water	3005A	
620-6742-6	SC3-MW-01-090122	Total/NA	Water	3005A	
MB 620-14904/1-A	Method Blank	Total/NA	Water	3005A	
LCS 620-14904/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 620-14904/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Analysis Batch: 15055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-6742-1	SC1-MW-01-090122	Total/NA	Water	6010D	14904
620-6742-2	SC3-MW-02-090122	Total/NA	Water	6010D	14904
620-6742-3	SC3-MW-03-090122	Total/NA	Water	6010D	14904
620-6742-4	SC1-MW-03-090122	Total/NA	Water	6010D	14904
620-6742-5	SC1-MW-02-090122	Total/NA	Water	6010D	14904
620-6742-6	SC3-MW-01-090122	Total/NA	Water	6010D	14904
MB 620-14904/1-A	Method Blank	Total/NA	Water	6010D	14904
LCS 620-14904/2-A	Lab Control Sample	Total/NA	Water	6010D	14904
LCSD 620-14904/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	14904

Lab Chronicle

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Client Sample ID: SC1-MW-01-090122
Lab Sample ID: 620-6742-1
Date Collected: 09/01/22 12:00
Matrix: Water
Date Received: 09/02/22 15:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			14904	DWC	EET NE	09/06/22 16:28
Total/NA	Analysis	6010D		1	15055	CAJ	EET NE	09/14/22 21:35

Client Sample ID: SC3-MW-02-090122
Lab Sample ID: 620-6742-2
Date Collected: 09/01/22 13:30
Matrix: Water
Date Received: 09/02/22 15:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			14904	DWC	EET NE	09/06/22 16:28
Total/NA	Analysis	6010D		1	15055	CAJ	EET NE	09/14/22 21:42

Client Sample ID: SC3-MW-03-090122
Lab Sample ID: 620-6742-3
Date Collected: 09/01/22 14:30
Matrix: Water
Date Received: 09/02/22 15:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			14904	DWC	EET NE	09/06/22 16:28
Total/NA	Analysis	6010D		1	15055	CAJ	EET NE	09/14/22 21:49

Client Sample ID: SC1-MW-03-090122
Lab Sample ID: 620-6742-4
Date Collected: 09/01/22 10:35
Matrix: Water
Date Received: 09/02/22 15:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			14904	DWC	EET NE	09/06/22 16:28
Total/NA	Analysis	6010D		1	15055	CAJ	EET NE	09/14/22 21:56

Client Sample ID: SC1-MW-02-090122
Lab Sample ID: 620-6742-5
Date Collected: 09/01/22 12:15
Matrix: Water
Date Received: 09/02/22 15:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			14904	DWC	EET NE	09/06/22 16:28
Total/NA	Analysis	6010D		1	15055	CAJ	EET NE	09/14/22 22:03

Client Sample ID: SC3-MW-01-090122
Lab Sample ID: 620-6742-6
Date Collected: 09/01/22 14:05
Matrix: Water
Date Received: 09/02/22 15:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			14904	DWC	EET NE	09/06/22 16:28
Total/NA	Analysis	6010D		1	15055	CAJ	EET NE	09/14/22 22:10

Laboratory References:
EET NE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Laboratory: Eurofins New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-RI907	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3005A	Water	Arsenic
6010D	3005A	Water	Chromium
6010D	3005A	Water	Copper

Method Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET NE
3005A	Preparation, Total Metals	SW846	EET NE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET NE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Mabbett & Associates, Inc.
Project/Site: Solar Carver

Job ID: 620-6742-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-6742-1	SC1-MW-01-090122	Water	09/01/22 12:00	09/02/22 15:37
620-6742-2	SC3-MW-02-090122	Water	09/01/22 13:30	09/02/22 15:37
620-6742-3	SC3-MW-03-090122	Water	09/01/22 14:30	09/02/22 15:37
620-6742-4	SC1-MW-03-090122	Water	09/01/22 10:35	09/02/22 15:37
620-6742-5	SC1-MW-02-090122	Water	09/01/22 12:15	09/02/22 15:37
620-6742-6	SC3-MW-01-090122	Water	09/01/22 14:05	09/02/22 15:37

620-6742 Chain of Custody

6742

Chain of Custody Record

Boston #215

eurofins | Environment Testing America

Michael Bloom	Sampler: David Martin / Hanna Grady	Lab PM: Huntley Agnes R	Carrier Tracking No(s):
	Phone: 978-907 3591	E-Mail: Agnes Huntley@et.eurofinsus com	State of Origin:
Company: Mabbett & Associates Inc.	PWSID:		
Address: 105 Central Street Suite 4100	Due Date Requested.		
City: Stoneham	TAT Requested (days): Standard 10 Days		
State, Zip: MA, 02180	Compliance Project: Δ Yes Δ No		
Phone: 781-275-6050(Tel)	PO #: 5946		
Email: bloom@mabbett.com	WO #: R2021054 000 007		
Project Name: Solar Carver	Project #: 62000828		
Site: Pine Gate Renewables / Solar Carver	SSOW#:		

COC No: 620-5395-708 1
Page: Page 1 of 1
Job #:

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M Hexane, N - None, O - AsNaO2, P - Na2O4S, Q Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010MCP - 6010 MCP As, Cr, Cu	Total Number of containers	Special Instructions/Note:
				Preservation Code:				D		
01	SC1-MW-01-090122	09/01/22	1200	G	Water			X		
02	SC3-MW-02-090122	09/01/22	1330	G	Water			X		
03	SC3-MW-03-090122	09/01/22	1430	G	Water			X		
04	SC1-MW-03-090122	09/01/22	1035	G	Water			X		
05	SC1-MW-02-090122	09/01/22	1215	G	Water			X		
06	SC3-MW-01-090122	09/01/22	1405	G	Water			X		
					Water					

Page 14 of 16

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date.	Time.	Method of Shipment:
Relinquished by: Dawna	Date/Time: 9/1/22 1500	Company: Mabbett	Received by: Mabbett Fridge
Relinquished by: 9/2/22	Date/Time:	Company	Received by:
Relinquished by:	Date/Time: 9/2/22 1345	Company: ETA	Received by:

Date/Time: 9/1/22	Company	
Date/Time: 9-2-22 1135	Company: ETA	
Date/Time: 9-2-22 13:46	Company: ENE	

Custody Seals Intact: Δ Yes Δ No

Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 4.4 +0.4 4.8

Rel [signature] 9/2/22 15:37 ENE [signature] 9/2/22 15:37 ENE

Ver 06/08/2021

11/21/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: Mabbett & Associates, Inc.

Job Number: 620-6742-1

Login Number: 6742
List Number: 1
Creator: Scott, Krishnan F

List Source: Eurofins New England

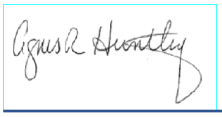
Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eurofins New England

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



Generated
11/21/2022 7:30:14 PM
Revision 1

Authorized for release by
Agnes Huntley, Project Manager
Agnes.Huntley@et.eurofinsus.com
(401)372-3482

APPENDIX C

Public Notification Letters

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March 29, 2023

Mark Townsend
Chair, Carver Select Board
108 Main Street
Carver, MA 02330

Re: Submittal of Release Notification Form and Availability of Permanent Solution Statement
Release Tracking Number 4-0029773
Solar Carver 1, Tremont Street
Carver, Massachusetts
Mabbett Project No. R2021054.002

Dear Mr. Townsend:

In accordance with 310 CMR 40.1403(3)(h) and 310 CMR 40.1403(3)(f) of the Massachusetts Contingency Plan (MCP), and on behalf of Pine Gate Renewables, LLC, this letter serves as notification that a Release Notification Form (RNF) was submitted to the Massachusetts Department of Environmental Protection (MassDEP) and a Permanent Solution Statement is available for a release of arsenic to soil at the Solar Carver 1 project site on Tremont Street in Carver, Massachusetts.

A copy of the RNF is provided as an attachment to this letter. Section 310 CMR 40.1403(9) of the MCP provides information on the public involvement opportunities provided to local officials with regard to this release. The Permanent Solution Statement is available for review on the MassDEP's Searchable Sites Portal, which can be accessed using the following link: https://eeaonline.eea.state.ma.us/portal#!/wastesite/4-0029773. This report describes the Method 1 risk characterization performed to demonstrate that the presence of arsenic in soil does not pose a significant risk to human health, and provides the rationale to support an opinion that the regulatory requirements for a Permanent Solution with No Conditions have been achieved, as specified in 310 CMR 40.1041(1).

If you have any questions or comments, please contact me at (781) 275-6050.

Very truly yours,

MABBETT & ASSOCIATES, INC.
BY:

Stephen A. Vetere, PE, LSP
Senior Project Manager
vetere@mabbett.com

cc: MassDEP electronically (RTN 4-0029773)
Carver Board of Health

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

RELEASE NOTIFICATION FORM

Pursuant to 310 CMR 40.0371 (Subpart C)

BWSC103-120 DAY

Release Tracking Number
assigned upon receipt and
review by the Department

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: SOLAR CARVER 1

2. Street Address: 0 TREMONT STREET

3. City/Town: CARVER 4. ZIP Code: 023300000

5. Coordinates: a. Latitude: N 41.82332 b. Longitude: W 70.75442

B. THIS FORM IS BEING USED TO:

☑ 1. Submit a **Release Notification** for a 120 day reporting requirement

(All sections of this transmittal form must be filled out)

C. INFORMATION DESCRIBING THE RELEASE:

1. Date and time you obtained knowledge of the Release: 12/8/2022 (mm/dd/yyyy) Time: 10:44 (hh:mm) ☑ AM ☐ PM

2. Date and time release occurred, if known: (mm/dd/yyyy) Time: (hh:mm) ☐ AM ☐ PM

3. 120 DAY REPORTING CONDITIONS

Check all Notification Thresholds that apply to the Release:
(for more information see 310 CMR 40.0315)

☑ a. Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)

☐ b. Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards

☐ c. Release of Oil to Groundwater Exceeding Reportable Concentration(s)

☐ d. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch (.01 feet) and Less than 1/2 Inch (.04 feet)

C. INFORMATION DESCRIBING THE RELEASE (cont.)

4. List below the Oils (O) or Hazardous Materials (HM) that exceed their Reportable Concentration (RC) or Reportable Quantity (RQ) by the greatest amount.

☐ Check here if an amount or concentration is unknown or less than detectable.

O or HM Released	CAS Number, if known	O or HM	Amount or Concentration	Units	RCs Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)
ARSENIC	7440-38-2	HM	24	PPM	RCS-1

☐ Check here if a list of additional Oil and Hazardous Materials subject to reporting, or any other documentation relating to this notification is attached.

D. PERSON REQUIRED TO NOTIFY:

1. Name of Organization: PINE GATE RENEWABLES

2. Contact First Name: JULIANNE 3. Last Name: WOOTEN

4. Street: 130 ROBERTS STREET 5. Title:

6. City/Town: ASHEVILLE 7. State: NC 8. ZIP Code: 288010000

9. Telephone: 828-820-2972 10. Ext.: 11. Email: jwooten@pgrenewables.com

☐ 12. Check here if attaching names and addresses of owners of properties affected by the Release, other than an owner who is submitting this Release Notification (required).

E. RELATIONSHIP OF PERSON TO RELEASE:

☑ 1. RP or PRP ☑ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☐ e. Other RP or PRP Specify:

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Otherwise Required to Notify Specify Relationship:

F. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

1. I, JULIANNE WOOTEN, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By : JULIANNE WOOTEN (Signature) 3. Title: _____

4. For: PINE GATE RENEWABLES (Name of person or entity recorded in Section D) 5. Date : 3/24/2023 (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. Email: _____

YOU ARE SUBJECT TO ANNUAL COMPLIANCE ASSURANCE FEES FOR EACH BILLABLE YEAR FOR TIER CLASSIFIED DISPOSAL SITES. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Received by DEP on 3/24/2023 11:40:05 AM

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info@mabbett.com
www.mabbett.com

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March 29, 2023

Jill Martins
Carver Board of Health
108 Main Street
Carver, MA 02330

Re: Submittal of Release Notification Form and Availability of Permanent Solution Statement
Release Tracking Number 4-0029773
Solar Carver 1, Tremont Street
Carver, Massachusetts
Mabbett Project No. R2021054.002

Dear Ms. Martins:

In accordance with 310 CMR 40.1403(3)(h) and 310 CMR 40.1403(3)(f) of the Massachusetts Contingency Plan (MCP), and on behalf of Pine Gate Renewables, LLC, this letter serves as notification that a Release Notification Form (RNF) was submitted to the Massachusetts Department of Environmental Protection (MassDEP) and a Permanent Solution Statement is available for a release of arsenic to soil at the Solar Carver 1 project site on Tremont Street in Carver, Massachusetts.

A copy of the RNF is provided as an attachment to this letter. Section 310 CMR 40.1403(9) of the MCP provides information on the public involvement opportunities provided to local officials with regard to this release. The Permanent Solution Statement is available for review on the MassDEP's Searchable Sites Portal, which can be accessed using the following link: https://eeaonline.eea.state.ma.us/portal#!/wastesite/4-0029773. This report describes the Method 1 risk characterization performed to demonstrate that the presence of arsenic in soil does not pose a significant risk to human health, and provides the rationale to support an opinion that the regulatory requirements for a Permanent Solution with No Conditions have been achieved, as specified in 310 CMR 40.1041(1).

If you have any questions or comments, please contact me at (781) 275-6050.

Very truly yours,

MABBETT & ASSOCIATES, INC.
BY:

Stephen A. Vetere, PE, LSP
Senior Project Manager
vetere@mabbett.com

cc: MassDEP electronically (RTN 4-0029773)
Carver Select Board

© 2023 Mabbett & Associates, Inc.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

RELEASE NOTIFICATION FORM

Pursuant to 310 CMR 40.0371 (Subpart C)

BWSC103-120 DAY

Release Tracking Number
assigned upon receipt and
review by the Department

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: SOLAR CARVER 1

2. Street Address: 0 TREMONT STREET

3. City/Town: CARVER 4. ZIP Code: 023300000

5. Coordinates: a. Latitude: N 41.82332 b. Longitude: W 70.75442

B. THIS FORM IS BEING USED TO:

☑ 1. Submit a **Release Notification** for a 120 day reporting requirement

(All sections of this transmittal form must be filled out)

C. INFORMATION DESCRIBING THE RELEASE:

1. Date and time you obtained knowledge of the Release: 12/8/2022 (mm/dd/yyyy) Time: 10:44 (hh:mm) ☑ AM ☐ PM

2. Date and time release occurred, if known: (mm/dd/yyyy) Time: (hh:mm) ☐ AM ☐ PM

3. 120 DAY REPORTING CONDITIONS

Check all Notification Thresholds that apply to the Release:
(for more information see 310 CMR 40.0315)

☑ a. Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)

☐ b. Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards

☐ c. Release of Oil to Groundwater Exceeding Reportable Concentration(s)

☐ d. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch (.01 feet) and Less than 1/2 Inch (.04 feet)

C. INFORMATION DESCRIBING THE RELEASE (cont.)

4. List below the Oils (O) or Hazardous Materials (HM) that exceed their Reportable Concentration (RC) or Reportable Quantity (RQ) by the greatest amount.

☐ Check here if an amount or concentration is unknown or less than detectable.

O or HM Released	CAS Number, if known	O or HM	Amount or Concentration	Units	RCs Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)
ARSENIC	7440-38-2	HM	24	PPM	RCS-1

☐ Check here if a list of additional Oil and Hazardous Materials subject to reporting, or any other documentation relating to this notification is attached.

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1. Name of Organization: PINE GATE RENEWABLES

2. Contact First Name: JULIANNE 3. Last Name: WOOTEN

4. Street: 130 ROBERTS STREET 5. Title:

6. City/Town: ASHEVILLE 7. State: NC 8. ZIP Code: 288010000

9. Telephone: 828-820-2972 10. Ext.: 11. Email: jwooten@pgrenewables.com

☐ 12. Check here if attaching names and addresses of owners of properties affected by the Release, other than an owner who is submitting this Release Notification (required).

E. RELATIONSHIP OF PERSON TO RELEASE:

☑ 1. RP or PRP ☑ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☐ e. Other RP or PRP Specify:

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Otherwise Required to Notify Specify Relationship:

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1. I, JULIANNE WOOTEN, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By : JULIANNE WOOTEN (Signature) 3. Title: _____

4. For: PINE GATE RENEWABLES (Name of person or entity recorded in Section D) 5. Date : 3/24/2023 (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. Email: _____

YOU ARE SUBJECT TO ANNUAL COMPLIANCE ASSURANCE FEES FOR EACH BILLABLE YEAR FOR TIER CLASSIFIED DISPOSAL SITES. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Received by DEP on 3/24/2023 11:40:05 AM