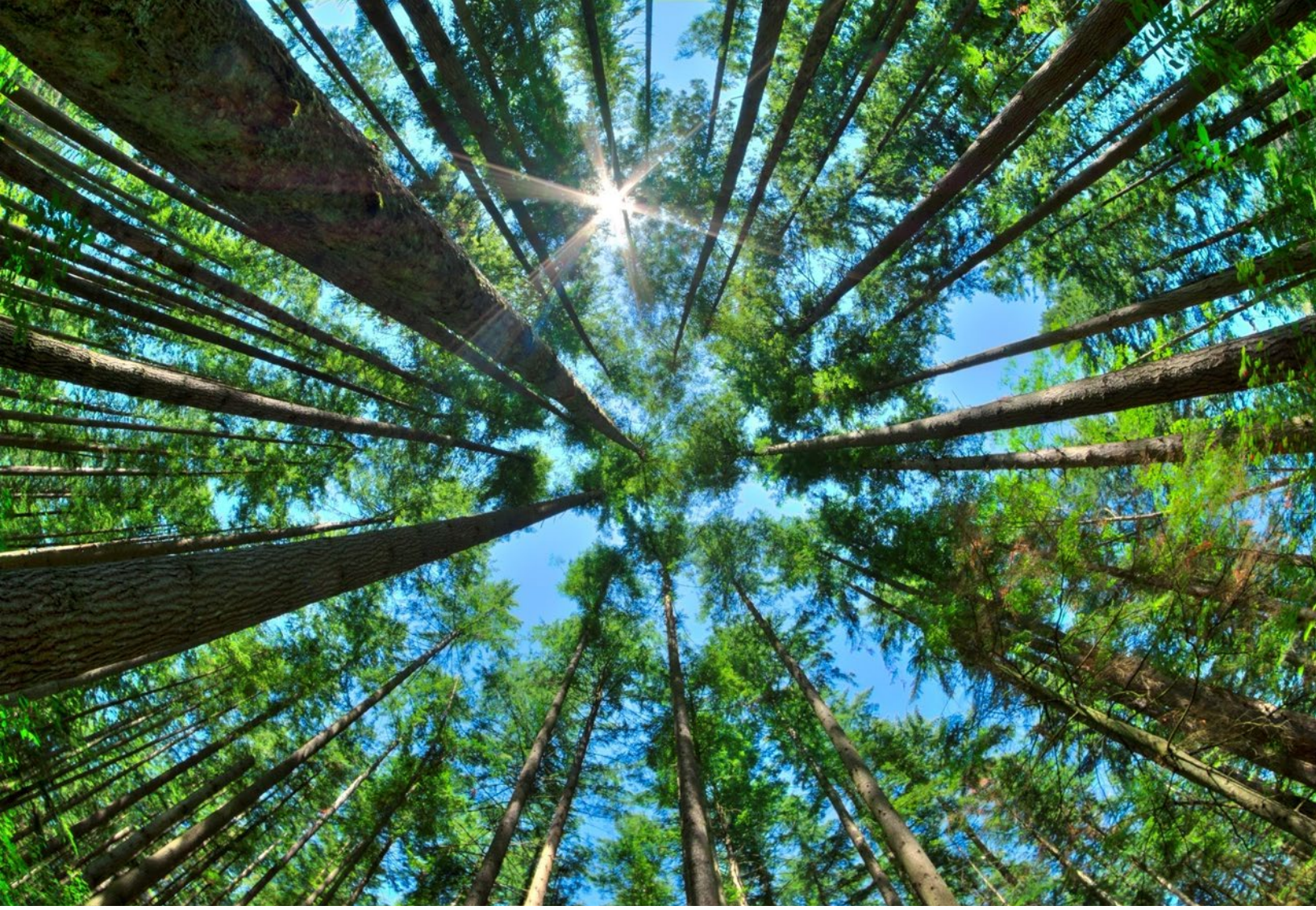


Supplemental Site Investigation Report

Energizer, 401 Gage Street, Bennington, Vermont

16 June 2021

Project No.: 0529121

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16 June 2021

Supplemental Site Investigation Report

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Acronyms and Abbreviations

Name	Description
AOC	area of concern
AS/SVE	air sparge/soil vapor extraction
bgs	below ground surface
CAP	Corrective Action Plan
CERCLIS	Comprehensive environmental response, compensation, and liability information system
COC	constituents of concern
CSM	conceptual site model
CVOC	chlorinated volatile organic compound
DNAPL	dense non-aqueous phase liquid
ECAA	Evaluation of Corrective Action Alternatives
EDR	Environmental Data Resources, Inc.
Energizer	Energizer Holdings, Inc.
ERM	ERM Consulting and Engineering, Inc.
FRB	field rinseate blank
IDW	investigation-derived waste
IRule 2019	Investigation and Remediation of Contaminated Properties Rule
PCE	tetrachloroethene
PFAS	per- and polyfluoroalkyl substances
PFBS	perfluorobutane sulfonic acid
PFHpA	perfluoroheptanoic acid
PFHxS	perfluorohexane sulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluoroocanotic acid
PFOS	perfluorooctane sulfonic acid
PTFE	polytetrafluoroethylene
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
RSL	regional screening level
SIR	Site investigation report
Site	Energizer Holdings Facility, 401 Gage Street, Bennington, VT, Parcel IDs: 50536100, 51530400, 50536000, and 51534200; School Property Account Numbers (SPANs): 051-015-67173, 051-015-6778, 051-015-67172, and 051-015-67815
SOP	standard operating procedure
SPANs	School Property Account Numbers
SSGSV	sub-slab soil gas screening value
SSIR	supplemental site investigation report
Supplemental Work Plan	supplemental Site Investigation Work Plan
TCE	trichloroethylene
TPH	total petroleum hydrocarbons
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound
VT GW VIS_{RES}	Vermont Groundwater Vapor Intrusion Standard, residential exposure
VTDEC	Vermont Department of Environmental Conservation
VTGWQES	Vermont Primary Groundwater Quality Enforcement Standards
Work Plan	Site Investigation Work Plan

EXECUTIVE SUMMARY

ERM Consulting and Engineering, on behalf of Energizer Holdings, Inc., completed a supplemental site investigation for the facility located at 401 Gage Street in Bennington, Vermont (Site). The Vermont Department of Environmental Conservation (VTDEC) Site Number for the Site is 2006-3509. This report and the associated investigations were performed in accordance with the VTDEC Environmental Protections Rules Chapter 35 Section 304, Investigation and Remediation of Contaminated Properties Rule (IRule 2019) dated 6 July, 2019. This supplemental Site investigation was intended to examine potential impacts to groundwater from historical mercury use, lead plating operations, chlorinated solvent use, and per- and polyfluoroalkyl substance (PFAS) use. The Site contains several buildings (Plant 1, Plant 2, boiler house, tank farm enclosure, and storage sheds) and has been used for the manufacture of miniature batteries since at least 1942.

Investigation activities are detailed in the May 2020 Work Plan, approved by VTDEC on 3 June 2020, and the 15 October 2020 Supplemental Work Plan, approved by VTDEC on 22 October 2020. They included the installation of four additional monitoring wells in the vicinity of Plant 2; groundwater sampling for mercury, lead, PFAS, and chlorinated volatile organic compounds (CVOCs) in July 2020; additional groundwater sampling for CVOCs and PFAS in October 2020; sub-slab soil gas sampling for CVOC analysis under Plant 2 in July 2020; additional sub-slab soil gas sampling for CVOC analysis under Plant 2 in December 2020; and indoor air sampling for CVOC analysis in Plant 2 in December 2020. Mercury and lead were not detected in Site groundwater. Tetrachloroethene (PCE) was the only CVOC detected in groundwater above the VTDEC primary groundwater quality enforcement standards (VTGWQES). PCE impacts are isolated to a known downgradient plume northwest of the Site. Based on previous investigations and the established conceptual site model (CSM), this plume is likely sustained by an off-site source and continues to be monitored. PFAS concentrations exceeded the VTGWQES in three locations in July 2020 but only two locations in October 2020. PFAS concentrations in groundwater are not indicative of an on-site source or release. They may be attributed to anthropogenic background in the area, including potential atmospheric deposition and migration in storm water runoff.

A sub-slab soil gas survey completed in 2019 revealed PCE and trichloroethene (TCE) concentrations exceeding the IRule 2019 residential and nonresidential sub-slab soil gas screening values (SSGSV) under Plant 1 and Plant 2. Additional investigation under Plant 2, completed as part of this supplemental site investigation, revealed lower concentrations of PCE and TCE in sub-slab soil gas than in the single 2019 sample. In the most recent samples, December 2020, PCE concentrations in sub-slab soil gas did not exceed the industrial nonresidential SSGSV and exceeded the residential SSGSV in only one location in Plant 2 (SSV-02). Concentrations of TCE exceeded residential and industrial nonresidential SSGSV in one location in Plant 2 (SSV-05) and exceeded only residential SSGSV in one additional Plant 2 location (SSV-02). In indoor air samples collected concurrently with these sub-slab soil gas samples, PCE and TCE concentrations were below laboratory reporting limits in samples collected in the Plant 2 building and the boiler house. TCE was estimated at values above the method detection limit but below the reporting limit in three locations in Plant 2 (IA-01, IA-02, and IA-05). These estimated values are below the nonresidential screening levels but exceed the residential screening levels. Toluene and xylenes were detected in indoor air but were below the applicable residential screening values. Benzene concentrations in indoor air were consistent with the concurrent, upwind outdoor air sample (OA-1).

Based on the data collected, Energizer has completed Site investigation activities and does not recommend further investigation at this time. Energizer plans to complete and submit an evaluation of corrective action alternatives (ECAA) based on these findings and the results of previous investigations. The ECAA will address the potential need for vapor intrusion mitigation in the buildings, the long term monitoring strategy for PFAS and VOCs in groundwater, and the potential need for institutional controls.

1. INTRODUCTION

This Supplemental Site Investigation Report (SSIR) was prepared on behalf of Energizer Holdings, Inc. (Energizer) for its facility located at 401 Gage Street in Bennington, Vermont (Site). Previous investigation and remediation activities have been completed at the Site and associated reports provided to the Vermont Department of Environmental Conservation (VTDEC) under Site Number 2006-3509. This SSIR describes additional investigations performed to prepare the Energizer facility for closure per the VTDEC Vermont Hazardous Waste Generator and Facility Closure Guidance (VTDEC 2005) and to further assess groundwater impacts that may exist per VTDEC Environmental Protections Rules Chapter 35 Section 306. Energizer submitted the Hazardous Waste Generator Pre-Closure Notification Form for the Site on 4 February 2020. Facility and property reuse is unknown at this time. The current facility closure timeline estimates that all facility operations will cease in early 2021.

ERM Consulting and Engineering, Inc. (ERM), on behalf of Energizer, performed the site investigation in accordance with a Site Investigation Work Plan ("Work Plan"), which was prepared and submitted on 27 May 2020 in accordance with the VTDEC Environmental Protections Rules Chapter 35 Section 304, Investigation and Remediation of Contaminated Properties Rule (IRule 2019). The Work Plan was approved by the VTDEC on 3 June 2020. Additional work was completed in accordance with a Supplemental Site Investigation Work Plan ("Supplemental Work Plan") submitted on 15 October 2020 and approved by VTDEC on 22 October 2020.

1.1 Purpose and Scope

Investigation and remediation activities have been completed to address historical chlorinated solvent use at the Site. These investigations and remediation activities were historically focused on impacts under and downgradient of the Plant 1 building. To meet the requirements of the VTDEC Hazardous Waste Generator and Facility Closure Guidance and the IRule 2019, Energizer must control, minimize, or eliminate post-closure escape of hazardous waste to the atmosphere to the extent necessary to protect human health and the environment. The purpose of this SSIR is to detail the results of groundwater, sub-slab soil vapor, and indoor air sampling performed to evaluate the potential for risks to human health or the environment across both Plant 1 and Plant 2. The information provided in this SSIR is intended to satisfy the requirements of the IRule 2019 for Site Investigation Reports. This SSIR, in combination with previously submitted Site investigation reports (listed in Section 3.2) provide details regarding the source, nature and extent of contamination at the Site, existing and potential migration pathways, existing and potential receptors, and the fate of contamination at the Site.

2. SITE INFORMATION

2.1 Property Owner and Operator

According to property records obtained from the Town of Bennington Assessor's office, the Site has been owned by Energizer or various predecessors since 1940. Per the VTDEC Environmental Protections Rule §35-306(b)(2), the contact information for the Site is provided in the table below.

Property Owner Representative	Address	E-mail Address	Phone Number
Scott Boyle	800 Albemarle Road Asheboro, NC 27203	ScottV.Boyle@Energizer.com	(336) 672-3502

2.2 Current Property Use

Operations at the Site currently include the manufacturing of miniature batteries. Ancillary activities include packaging and shipping, quality assurance/quality control (QA/QC) laboratories, and administrative activities. Batteries are manufactured along several partially automated production lines. Gaskets used in the batteries are produced in automated molding machines. Currently only the Plant 1 building is in use.

2.3 Uses of Properties Adjacent to the Site

The surrounding land use is primarily residential with some office and apartment zoning located south of the Site on the opposite side of the Walloomsac River (Figure 1). Light commercial properties are located southeast of the Site.

2.4 Site Description

The Site is located on the south side of Gage Street, northeast of downtown Bennington in Bennington County, Vermont. The Walloomsac River is located to the south. The general location of the Site Property and the surrounding area are depicted on Figure 1.

The Site Property comprises five land parcels (four tax ID parcels), which total approximately 9.29 acres, developed with six buildings which include Plant 1, Plant 2, a Boiler House, Tank Farm Enclosure, an unnamed storage building, and a wooden storage shed. The land parcels are divided into several lots, which are shown on the Site map provided as Figure 2. The two main facility buildings are Plant 1 and Plant 2. Plant 1 is located immediately south of Gage Street and is currently in operation. Plant 2 is located further south on Scott Street and was vacated in 2016. Information on historical Site building use is described further in Section 2.6 below. According to VTDEC records, there are 11 private water supply wells within 2000 ft. of the Site. The nearest is approximately 750 feet southwest of the Site and is not hydraulically downgradient as shown on Figure 1. As previously described in ERM's 2007 Site Investigation Report (SIR) (ERM 2007c), the upgradient public water source is Morgan Spring which is used in bottling.

2.4.1 Site Geology and Hydrology

The Site geology consists of a high permeability aquifer, comprised of sand, gravel, cobbles, and boulders, overlying an aquitard, comprised of a silt layer overlying a lodgement till. Groundwater flows to the west-northwest at an estimated velocity ranging from 7 to 70 feet per day (Figures 3a and 3b). A downward vertical component of groundwater flow has been measured at the Site, but is less significant than the horizontal flow component, due to the relatively low permeability of the underlying silt aquitard.

The Site is located immediately north of the Walloomsac River. The reach of the Walloomsac adjacent to the Site appears to be recharging groundwater (i.e., a losing stream); based on the measurement of groundwater flow gradients away from the river (Figures 3a and 3b). The Walloomsac River flows to the west and then to the north, converging with the Roaring Branch of the Walloomsac about one mile northwest of the Site. Morgan Brook is located on the northern Site boundary along the northern edge of the alley way that runs perpendicular to Division Street (Figure 2) and is recharged by groundwater from Morgan Spring (1,900 feet east of the Site), which is sourced by a regional karstic bedrock aquifer. On Site, Morgan Brook flows above ground along the length of the alley and then flows in an underground conduit from the west end of the alley to its discharge point in the Walloomsac River downstream of the Site. In the alley, Morgan Brook appears to be a perched, but “leaky” stream that does not appear to significantly affect groundwater flow directions, but does appear to partially impede soil gas migration.

2.5 Latitude/Longitude of the Site

The geographical coordinates of the Site are 73°11’26.99” West, 42°52’50.06” North.

2.6 Property History

Plant 1 was built in stages between approximately 1896 and the 1970s. Prior to battery manufacturing, the facility was a hosiery manufacturer. Plant 2 and the Boiler House were built in 1917 and were originally a manufacturing facility for cotton underwear. Union Carbide, a predecessor of Energizer, began operations at Plant 1 in 1942 and at Plant 2 in the 1950s. Union Carbide operations in the 1950s included the production of flat cell batteries and lead plating operations on the first floor of Plant 2. Union Carbide began the production of miniature alkaline batteries in the 1960s, with the alkaline battery division known as the Eveready Battery Co.

In 1984, the Site was upgraded to include the production of miniature lithium batteries, lithium extruders, and additional packaging/printing lines. In 1987, a zinc air cell line was installed to manufacture hearing aid batteries. According to Site personnel, the lead plating operations on the first floor of Plant 2 ceased in the 1980s and extensive remediation was conducted under VTDEC site number 770098 (also recorded as #77-98), including removal of the concrete floor and excavation of the underlying soil. The facility stopped production of lithium ion batteries in 1999.

Eveready Battery Co. was rebranded as Energizer in 2000. Operations ceased in Plant 2 in 2016 and molding operations were relocated to Plant 1. Current manufacturing produces only silver oxide chemistry batteries. Lithium ion batteries manufactured overseas are also repackaged at the Site.

The historical use of other areas of the Site property (Figure 2) are summarized as follows:

- Lot 1: The paved area east of Plant 2 have historically been used for parking since the 1940s.
- Lot 2: The paved area west of Plant 2 was originally occupied by several small commercial and industrial buildings, including a paper box factory from the 1880s through the 1950s. The buildings were used by Plant 2 for storage in the 1960s prior to their demolition.
- Lots 3 and 4: The paved area west of Plant 1 was originally built with residences, but which by the 1970s had been demolished and paved over.
- Lot 6: The paved area east of Plant 1 was originally occupied by a knitting mill, dye house, boiler house, and machine shop from the 1880s through the 1960s. From at least the 1920s through the 1930s, a portion of the property was occupied by a dry cleaner. The former Lot 6 buildings were demolished in the 1970s.

- Lot 7: The unpaved area east of Plant 2 was originally used as storage for surrounding industrial buildings from the 1880s through the 1970s. The existing empty storage shed has been present since at least the 1970s.

3. SITE CONTAMINANT BACKGROUND

3.1 Known Releases

Information on known releases of hazardous materials, including the date of release or discovery of release, the date the release was reported to VTDEC, and description of response actions is included in Table 3.1.

Table 3.1: Known Releases

Spill Number	Date Release Reported	VT DEC Status	Approximate Quantity	Details/Response Action
185-86	11 August 1986	Closed on 8 November 1986	2,700	Untreated wastewater released to a storm drain and into Morgan Brook
SMS #77-98	6 November 1986	Closed on 3 November 1997	3,750	Rise water from lead plating
1987-152	28 July 1987	Closed on 1 January 2000	1,000	Rinse water with Oakite cleaning solution
1988-028	5 February 1988	Closed on 15 February 1988	Not Listed	Mercury spill inside truck; Responsible Party was Carolina Freight
1989-036	13 February 1989	Closed on 13 February 1989	Not Listed	Hose on truck leaked #4 Fuel Oil; Responsible Party was Merrill Transport
1992-026	27 January 1992	Closed on 28 January 1992	1	Non-hazardous material collected on roof and disposed of off-Site
1992-034	11 February 1992	Closed on 12 February 1992	6	Mercury spilled but contained inside storage box
No spill number attached	23 December 1992	No closure date assigned by the emergency response notification system	Not listed	Rinse water with trace amounts of magnesium, nickel, and mercury
No spill number attached	8 January 1998	No closure date assigned by the hazardous materials information reporting system	10	Sodium hydroxide
2005 WMD268	14 July 2005	Closed on 21 September 2005 (Relisted as SMS Site #2005-3379 and closed with SMAC status)	Not Listed	Transformer leak; contaminated soil found during excavation; cleaned up by ECS
2006 WMD101	8 March 2006	Closed on 28 March 2006 (Relisted as SMS Site #2006-3509 and remains open)	Not Listed	Historical PCE and TCE in soil; investigated and remediated

3.2 Previous Environmental Investigations and Reports

In March 2006, the Site was identified as VTDEC Hazardous Site No. 2006-3509 due to the discovery of trichloroethylene (TCE) and tetrachloroethene (PCE) in soil and groundwater in the vicinity of a former vapor degreaser in the northeastern portion of Plant 1. Investigations were completed under and downgradient of Plant 1, in the parking lot parcels east and west of Plant 1, downgradient of Plant 2, and in the residential neighborhood downgradient of Plant 1. Chlorinated solvents impacts have been under investigation and remediation since 2006. A record of the associated investigation and remediation activities completed to date can be found in documents filed with VTDEC, including but not limited to:

- Initial Shallow Groundwater Investigation Report (ERM 2006a);
- Dynamic Work Plan for Site Investigation (ERM 2006b);
- Work Plan for Off-Site Investigation Activities (ERM 2007a);
- Summary of Air Sparge/Soil Vapor Extraction (AS/SVE) (ERM 2007b);
- Site Investigation Report/Corrective Action Feasibility Investigation (ERM 2007c);
- Corrective Action Plan (CAP; ERM 2007d);
- Vapor Intrusion Investigation Report – Addendum to Site Investigation Report (ERM 2008a);
- Interim Remedial Measure and CAP Final Construction Report (ERM 2008b);
- Residential Property Investigation Work Plans and Site Investigation Addendum Report (ERM 2011, 2012a, 2012b)
- CAP Addendum (ERM 2013);
- PFAS Investigation Work Plan and Results (ERM 2017, ERM 2018);
- Historical Use PFAS Report (Energizer 2018); and
- ERM remediation and post-remediation Operation, Maintenance, and Monitoring Reports from 2008 through present day.

In addition to the previously submitted reports, ERM performed a preliminary soil gas survey in November 2019. A total of 24 temporary sub-slab soil gas sampling points were installed and sampled for PCE and TCE analysis using an on-site mobile laboratory. The draft results of this investigation were submitted via email to VTDEC on 14 February 2020. Results are included here as Appendix A.

The Interim Remedial Measure and CAP remediation activities previously completed at the Site included focused shallow excavations, AS/SVE along the northern Site boundary, and AS/steam-enhanced SVE near the former degreaser source area. Source area remediation was completed in 2009 and the AS/SVE system operated until 2012.

Post-remediation PCE and TCE concentrations monitored in groundwater are limited to the shallow sand and gravel aquifer and have decreased substantially since commencing remediation activities. TCE is not currently detected above Vermont Primary Groundwater Quality Enforcement Standards (VTGWQES) in wells currently being monitored at the Site. PCE concentrations in groundwater near the former source area have been reduced by over 99.9%, which has resulted in reduction of PCE concentrations in the downgradient dissolved-phase plume by up to 98%. The current dissolved-phase plume of PCE exceeding the VTGWQES extends an estimated 550 feet northwest off-site and is currently being monitored on an annual basis. Long-term groundwater monitoring is ongoing and Interim Remedial Measure and CAP Operation, Maintenance, and Monitoring Reports are submitted biennially to VTDEC.

3.2.1 Rationale for Additional Site Investigation Completed

To meet the requirements of the VTDEC Hazardous Waste Generator and Facility Closure Guidance, Energizer must control, minimize, or eliminate post-closure escape of hazardous waste to the atmosphere to the extent necessary to protect human health and the environment. While investigations and remediation activities have already been completed at the Site, additional steps are proposed to evaluate if historical operations relating to hazardous material usage at the facility pose additional potential risk to human health or the environment. In addition, sub-slab soil gas samples collected in November 2019, following announcement of facility closure, revealed elevated concentrations of chlorinated solvents (PCE and TCE) under Plant 1 and a portion of Plant 2. This new data warranted additional investigation under the IRule 2019. Additionally, historical operations detailed below warrant additional investigation of groundwater, sub-slab soil vapors, and indoor air.

3.2.1.1 Historical Mercury Use in Plant 1 and 2

In both Plant 1 and Plant 2, mercury was historically used as part of manufacturing operations. In Plant 1, a mercury stokes room was located in the northern section of the building prior to the 1990s, and a mercury gel room was in use in the center of the building until the room closed in 2015. The location of these areas are noted in Figure 2. In Plant 2, mercury was reportedly used on the third floor as part of manufacturing operations until 2008. Based on the potential for release during mercury use and storage at the Site, mercury sampling was performed to assess potential mercury impacts in groundwater.

3.2.1.2 Historical Lead Plating Operations

Lead plating operations historically took place on the first floor of the Plant 2 building. These operations started in the 1950s and ceased in the 1980s. In 1986, the Plant 2 floor was removed and soils beneath the floor were excavated to remove associated impacts. Historical records of those remediation activities are limited. Lead sampling in groundwater was performed near Plants 1 and 2 to confirm previous remedial activities and assess potential lead impacts in groundwater.

3.2.1.3 Historical Use of Chlorinated Solvents at Plant 1 and 2

Investigation into historical chlorinated solvent impacts at Plant 1 has already been completed. A sub-slab soil gas evaluation was not previously conducted in the Plant 1 building due to potential interference from ongoing TCE use inside the Plant 1 building. Following the cessation of TCE use in 2019, ERM performed a soil gas screening survey in November 2019 to evaluate sub-slab conditions in Plant 1. The results of that survey were provided to VTDEC via e-mail on 14 February 2020. No additional chlorinated solvent investigations are proposed at Plant 1 at this time. Potential corrective actions relating to the results of the sub-slab soil gas screening survey will be discussed in the Evaluation of Corrective Action Alternatives (ECAA) Report to be submitted to VTDEC under separate cover.

The single sub-slab soil gas sample collected from the Plant 2 building during the 2019 survey contained PCE and TCE above the VTDEC sub-slab soil gas screening level. The Plant 2 building also stored and used hazardous chemicals, including chlorinated solvents, as a part of their manufacturing operations until the building was vacated in 2016. Due to the 2019 sub-slab soil gas result and historic use of chlorinated solvents, additional sub-slab soil gas sampling at Plant 2, the Boiler House behind Plant 2, and the Tank Farm Enclosure behind Plant 2 was performed as part of this site investigation to supplement the November 2019 sub-slab soil gas survey results. Indoor air sampling and additional groundwater investigation around the Plant 2 building was also performed based on historical chlorinated solvent use and storage.

3.2.1.4 Historical PFAS Use at Plant 2

Historical operations at Plant 2 involved the use of products that may have contained per- and polyfluoroalkyl substances (PFAS). According to Site contacts, products containing polytetrafluoroethylene (PTFE) in emulsion or powder (e.g., Polyflon PTFE D and Polymist), and potentially containing PFAS, were used in Plant 2 operations. Both Polyflon and Polymist have limited potential to result in environmental releases of PFAS. Polyflon is generally incorporated into batteries without generation of an aqueous waste stream, other than from rinsing and cleaning equipment or accidental spills. Polymist is a dry powder, which may be released as a fine dust on to surfaces. In December 2017, at the request of VTDEC, groundwater samples were collected from groundwater wells in the existing well network (i.e., near and downgradient of Plant 1) and sampled for PFAS. Results indicated low to non-detectable levels of PFAS, and no additional sampling was requested by VTDEC at the time. Additional groundwater sampling for PFAS closer to the Plant 2 building and in previously sampled wells was completed as part of this site investigation.

3.3 Records Review

ERM contracted Environmental Data Resources, Inc. (EDR) in October 2019 to identify regulatory listings for the Site and regulatory listed facilities in the vicinity of the Site. This review included the federal national priority site lists; the federal comprehensive environmental response, compensation, and liability information systems (CERLCIS); the federal resource conservation and recovery act (RCRA) facility and generator lists; the federal land use control information system; the federal engineering and institutional control site lists; the federal emergency response notification system; the VTDEC hazardous waste site database; the VTDEC solid waste facility/landfill site list; the VTDEC leaking aboveground and underground storage tank lists; the VTDEC underground storage tank database; the Vermont Department of Public Safety aboveground storage tank list; the VTDEC engineering and institutional controls site lists; the VTDEC brownfields site list; the VTDEC list of sites with known PFAS contamination; the VTDEC hazardous materials spill database; and the U.S. Environmental Protection Agency's list of dry cleaners, watch list, corrective action program list, toxic substances control act list, and toxic chemical release inventory system.

3.4 Preliminary Conceptual Site Model

The conceptual site model (CSM) for the Site was first documented in the 2007 SIR (ERM, 2007) following the high resolution site characterization investigations completed at the Site in 2006 and 2007 and then updated as part of the 2020 Work Plan documenting the additional Site investigation activities.

The 2007 SIR identified six areas of concern (AOCs) under and around Plant 1 documenting impacts of primarily PCE and TCE in soil, groundwater and soil gas. The six AOCs included:

- AOC-1: Former active degreaser area;
- AOC-2: Former machine shop;
- AOC-3: Production area;
- AOC-4: Former loading dock area;
- AOC-5: Former drain line; and
- AOC-6: Former process area sump.

As documented in the 2007 CSM, dissolved-phase plumes from the six AOCs coalesced, resulting in a single groundwater plume migrating off-site to the west-northwest. The dissolved phase plume migrated

within the shallow sand and gravel aquifer as the underlying silt layer acts as an aquitard to contaminant migration. As stated in Section 2.4.1 above, there is a downward vertical gradient to groundwater flow but it is significantly less than the horizontal migration of groundwater and is impeded by the silt aquitard. Minimal transverse dispersivity occurs downgradient of the Site, based on observations of a consistent off-Site plume width when the plume was originally delineated in 2006. Evidence of longitudinal dispersivity was observed, based on significant decreases in constituents of concern (COC) concentrations with increased distance downgradient of the AOCs. In addition, groundwater recharge is occurring along the length of the off-Site plume, resulting in dilution of COC concentrations. Remediation activities between 2008 and 2012 targeted off-site migration of this dissolved-phase groundwater plume via operation of an AS/SVE system along the Site boundary. Following remediation, TCE concentrations were reduced to below the VTGWQES and are currently below laboratory reporting limits in wells being monitored at the Site. PCE concentrations in the dissolved phase plume have decreased by up to 98% since monitoring began in 2006.

In 2006, evidence suggestive of the presence of dense non-aqueous phase liquid (DNAPL; i.e., detection of PCE in a groundwater sample collected from ERM-1 at a concentration approaching its aqueous solubility) were observed in AOC 1 within the upper portion of the silt aquitard. Total petroleum hydrocarbons (TPH) were detected within the vadose zone and shallow sand and gravel aquifer within AOCs 1 and 3. This TPH was thought to be associated with historical degreasing activities that may have contained PCE and TCE. Source area remediation was completed via thermally enhanced AS/SVE between 2008 and 2009 within the largest AOC, AOC-1. PCE concentrations in groundwater near the former source area have been reduced by over 99.9% and TCE is not currently detected above reporting limits. The current dissolved-phase plume is being monitored on an annual basis and Interim Remedial Measure/CAP Operation, Maintenance, and Monitoring Reports are submitted biennially to VTDEC.

COCs present and migrating within the vadose zone were investigated and discussed in the 2007 SIR CSM as well as in the 2008 Vapor Intrusion Investigation Report (ERM, 2008a), the 2011 and 2012 residential property investigations (ERM 2011, 2012a, 2012b) and the recent November 2019 soil gas survey. Primary risk drivers present in soil gas include PCE and TCE. PCE and TCE continue to be present in soil vapor under Plant 1, however it does not appear that soil gas concentrations migrate significantly from the Site. The 2011 and 2012 investigations on the residential properties (including two passive soil gas surveys, a Waterloo APS™ investigation, and depth-discrete soil sampling) indicate that Morgan Brook impedes soil gas migration. These investigations also demonstrated that soil gas impacts on the residential properties are likely due to the presence of a separate and distinct off-site source of PCE in soil that did not migrate from the Energizer property. In an email dated 17 August 2012, VTDEC concurred with the conclusion that there was “a separate and distinct off-site source area on the residential properties.” It should be noted that a trench of soil along the alley north of Plant 1, up to five feet below ground surface (bgs), was excavated during remedial system installation as well as in AOC-1. These areas were filled with flowable fill following excavation which will also continue to impede soil gas migration. Appropriate mitigation measures to address the remaining impacts to soil gas under Plant 1 will be discussed in the ECAA.

The CSM summarized above focused specifically on chlorinated volatile organic compounds (CVOCs) in groundwater, soil and soil gas. Significant investigation was completed at the Site, focused in and around Plant 1. In 2019, ERM conducted a review of environmental conditions at the Site in preparation for Site closure. ERM identified the following areas and constituents for additional investigation to augment the CSM:

- Historical mercury use in Plant 1 and Plant 2;
- Historical lead plating operations in Plant 2;

- Historical use of chlorinated solvents at Plant 2; and
- Historical PFAS use at Plant 2.

These historical operations are discussed in more detail in previous Sections of this report. Based on review of historical Site use and historical operations, the following four areas were investigated to augment the CSM and are the subject of this Supplement Site Investigation Report.

- Mercury was used historically in both the Plant 1 and 2. Potential groundwater impacts from historical mercury usage were evaluated by collecting groundwater samples for mercury analysis.
- Lead plating operations took place in the Plant 2 building. Investigation and remediation activities took place in the 1980s to address subsurface impacts from those operations (associated available documentation is limited). Current impacts to groundwater were evaluated for this report by collecting groundwater samples for lead analysis.
- Previous investigations into CVOC impacts are documented in several reports listed in Section 3.2. Waterloo profiler borings completed in 2006 were comprehensive and included borings (WP-1 through WP-4) downgradient of Plant 2 (Figure 2). All four locations were sampled for PCE, TCE, *cis*-1,2-dichloroethene, and *trans*-1,2-dichloroethene at discrete depths ranging from 7 feet below ground surface (bgs) to 20 feet bgs as described in the 2007 SIR. None of the groundwater samples collected from locations WP-1 through WP-4 detected concentrations of those four CVOCs above a reporting limit of 2 µg/L. The potential for CVOC impacts underneath and downgradient of Plant 2 was further evaluated for inclusion in this report by collecting groundwater samples, sub-slab soil vapor samples, and indoor air samples for laboratory analysis of CVOCs.
- In 2017, an investigation to evaluate potential PFAS impacts to Site groundwater was completed at three Site wells north and northwest of Plant 1: ERM-8, ERM-12, and ERM-16 (Figure 2). These results were communicated in a letter provided to VTDEC in 2018 (ERM 2018). Potential groundwater impacts from potential historical PFAS use at the Plant 2 building were evaluated for this report by collecting additional samples for PFAS analysis.

The additional investigations completed are detailed in Section 4.0 below. The results of the additional investigations are provided in Section 5.0 and the discussion of results in Section 6.0 includes updates to this CSM. A list of potential exposure pathways and receptors was originally provided in the 2007 SIR. The potential exposure pathways have been re-assessed based on newly collected data and presented in the updates to the CSM.

4. SITE INVESTIGATION

ERM conducted additional site investigation activities to assess potential impacts of historical storage and use of mercury, lead, chlorinated solvents, and PFAS at the Site. Investigation activities were proposed in the May 2020 Work Plan approved by VTDEC on 3 June 2020 and the 15 October 2020 Supplemental Work Plan approved by VTDEC on 22 October 2020. As a summary, the following activities were performed:

- Advanced and field screened four borings (B-101, B-102, B-103, B-104) south, west, and north of Plant 2 in July 2020 (boring logs are included as Appendix B);
- Completed the four borings as monitoring wells (MW-101, MW-102, MW-103, MW-104) in July 2020;
- Sampled groundwater in new monitoring wells for volatile organic compounds (VOCs), mercury and lead, and PFAS in July 2020;
- Sampled one existing monitoring well screened across the water table (ERM-5S) and four existing monitoring wells screened above the silt layer (ERM-5MA, ERM-6, ERM-8, and ERM-11S) for mercury and lead analysis in July 2020;
- Sampled two existing monitoring wells in the vicinity of Plant 1 (ERM-12, ERM-16) for VOC analysis in July 2020.
- Collected additional samples from the four new monitoring wells (MW-101, MW-102, MW-103, and MW-104) and three existing monitoring wells screened above the silt layer (ERM-16, ERM-8, and ERM-12) for VOCs, and PFAS in October 2020.
- Installed four sub-slab soil gas sample collection points (two in Plant 2, one in the office area of the Boiler House, and one inside of the Tank Farm Enclosure door) and collected samples for VOC analysis in July 2020.
- Installed one additional sub-slab soil gas sample collection point (in Plant 2) in December 2020.
- Collected sub-slab soil gas samples from four locations (three in Plant 2 and one in the office area of the Boiler House) for VOC analysis in December 2020.
- Collected four indoor air samples collocated with the sub-slab soil gas sample locations in December 2020 for VOC analysis, and also collected one outdoor ambient air sample.

Sample locations including groundwater monitoring well, indoor air, outdoor ambient air and sub-slab soil gas sample identification numbers are included on Figure 2.

Sampling methods were followed as detailed in the approved work plans.

4.1 Work Plan Protocol Deviations

Deviations from the approved Work Plan and Supplemental Work Plan protocols are identified as follows.

- Monitoring well ERM-9S could not be found so, as stated in the Work Plan, this location was replaced with the alternate proposed sampling location, ERM-8.
- The laboratory analyzed indoor air samples using TO-15 full scan rather than TO-15-SIM. Due to the higher laboratory reporting limits of this method, the laboratory reported indoor air and sub-slab soil gas samples to the method detection limit rather than the reporting limit. Concentrations higher than the method detection limit but below the reporting limit are indicated by a “J” qualifier.
- The laboratory analyzed groundwater samples for PFAS using EPA Method 537 (modified) rather than EPA Method 537.1. The modifications include additional matrices (groundwater, soil, and

tissue), isotope dilution to account for matrix interferences, and the use of different solid phase extraction cartridges and solvents. VTDEC was provided with the modified method via email on 24 May 2021.

4.2 Sample-Collection Documentation

Field notes were documented in the Site field notebook. Additionally, gauging forms, low-flow sampling forms, sub-slab soil gas sampling forms, and indoor air sampling forms were used for Site investigation activities. Copies of these forms are included in Appendix C.

4.3 Standard Operating Procedures and Regulatory Standards

The following standards and criteria applied to work done during the Site investigation:

- The Vapor Intrusion Screening Levels identified in VTDEC Environmental Protection Rule § 35-APX-A2.
- The VTGWQES as listed in Chapter 12 of the Environmental Protection Rule: Groundwater Protection Rule and Strategy, dated 6 July 2019.

ERM generally followed the guidance listed below for on-Site investigation activities:

- VTDEC IRule, dated 6 July 2019;
- United States Environmental Protection Agency (USEPA) Region I Low-Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells;
- VTDEC PFAS Sample Collection Information (VTDEC 2020); and
- ERM Standard Operating Procedure (SOP) for Sub-Slab Soil Gas Port Installation and Sampling.

The ERM SOP for Sub-Slab Soil Gas Port Installation and Sampling is provided in Appendix D.

5. CONTAMINATED MEDIA CHARACTERIZATION

The following subsections summarize the results of groundwater sampling for mercury, lead, CVOCs, and PFAS; the results of sub-slab vapor sampling for VOCs in Plant 2, boiler house and tank farm enclosure; and the results of the evaluation of VOCs in indoor air in Plant 2 and the boiler house. Results are tabulated in Tables 5.1a through 5.3 and compared to the applicable environmental media standards. An evaluation of the fate and transport of these compounds and an update to the CSM are included in the following section.

5.1 Groundwater Sampling Results

This section presents the results of two groundwater sampling events performed in 2020, 13-14 July 2020 and 26-27 October 2020. During each event, ERM collected groundwater samples from selected monitoring wells as described in Section 4.0 above. The analytical results from the groundwater sampling events are summarized in Table 5.1. Laboratory analytical reports are included as Appendix E. Contaminant distribution maps are included as Figures 4a through 5b.

Groundwater analytical data were compared to the 2019 VTGWQES. In accordance with the IRule 2019, if VTGWQES were not available, the more conservative EPA Regional Screening Levels (RSL) for residential carcinogenic target risk, ingestion of tap water values were used for comparison purposes. Of the compounds investigated, only PCE and the sum of five regulated PFAS exceeded the applicable comparison values. Groundwater concentrations and VTGWQES exceedances are discussed in Section 6.0, Discussion and Updated CSM.

5.1.1 Mercury and Lead

Samples collected in July 2020 from nine monitoring wells were analyzed for mercury by EPA Method SW7470A and for lead by EPA method SW6010C. Mercury and lead were below the VTGWQES and were not detected in groundwater above the laboratory reporting limits of 0.00020 and 0.010 mg/L, respectively.

5.1.2 Chlorinated Volatile Organic Compounds (CVOCs)

In July 2020, samples were collected from six well for VOC analysis by EPA Method SW8260C. TCE was below VTGWQES and not detected above the laboratory reporting limit (reporting limit ranged between 1 and 2 µg/L). PCE was detected in ERM-12 and ERM-16, northwest of Plant 1 in the PCE plume area, above the VTGWQES of 5 µg/L and consistent with concentrations monitored at these two off-site locations as part of the annual post-remediation operations, maintenance and monitoring. Chloroform was detected just above the reporting limit of 1 µg/L in a single well, MW-104, and in exceedance of the EPA RSL of 0.22 µg/l (chloroform does not have a VTGWQES). This concentration also minorly exceeded the Vermont groundwater vapor intrusion standard in a residential exposure scenario (VT GW $VISL_{RES}$) of 0.41 µg/L but was below the non-resident screening level of 3.7 µg/L

The same six wells, plus well ERM-8, were sampled in October 2020 for VOC analysis. The results matched those of the July 2020 event with no TCE detected above the laboratory reporting limit and PCE detected in ERM-12 and ERM-16 above the VTGWQES. Chloroform in MW-104 still exceeded the EPA RSL and the VT GW $VISL_{RES}$. Chloroform is not a Site COC for groundwater but was added to the sub-slab soil gas evaluation to provide further analysis of this identified concentration.

5.1.3 Per- and Polyfluorinated Alkyl Substances (PFAS)

Samples were collected for PFAS analysis by EPA Method 537 (modified) from four newly installed monitoring wells (near Plant 2) in July 2020. Additional samples from these four wells and three previously existing wells (near and downgradient of Plant 1) were collected in October 2020 for PFAS analysis.

Perfluorooctanoic acid (PFOA) was detected in all samples with the highest measured concentration of 73 ng/L in MW-103. Other PFAS, including perfluorooctane sulfonic acid (PFOS), perfluoroheptanoic acid (PFHpA), and perfluorobutane sulfonic acid (PFBS) were detected in a subset of the samples collected. With the exception of MW-104, PFOA concentrations were lower in October 2020 than in July 2020 in wells sampled in both July and October 2020. The VTGWQES for PFAS is 20 ng/L for the sum of PFOA, PFOS, perfluorohexane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), and PFHpA. In July 2020, three of four wells samples for PFAS analysis exceeded the VTGWQES (MW-101, MW-103, and MW-104). In December 2020, only two of seven wells exceeded the VTGWQES (MW-103 and MW-104).

5.2 Sub-Slab Vapor Sampling Results

Two rounds of sub-slab soil vapor samples were collected in Plant 2 and associated out buildings (in July and December 2020). Samples were analyzed by a fixed lab for VOCs by USEPA Method TO-15 and reported for a site-specific list of compounds of concern. The results of these sampling events are summarized in Table 5.2. Laboratory analytical reports are included as Appendix E. Sampling locations are shown on Figure 2.

Four sub-slab soil points (two in Plant 2, one in the office area of the Boiler House, and one inside the Tank Farm Enclosure door) were sampled in July 2020. The second round of sub-slab soil vapor sampling took place in December 2020. An additional sub-slab soil gas sampling point was installed and sampled in Plant 2. Sub-slab soil gas samples were collected from four points (three in Plant 2, and one in the office area of the Boiler House) during the December 2020 event. The sub-slab soil gas sampling point in the Tank Farm Enclosure was not sampled in December 2020 because no VOCs were detected above the residential sub-slab soil gas screening value (SSGSV) in July 2020. Sub-slab soil gas concentrations were compared to the IRule 2019SSGSV for both nonresidential and residential receptors (Table 5.2).

In July 2020, sub-slab soil gas concentrations of PCE exceeded the nonresidential and residential SSGSV at two locations (SSV-01 and SSV-02) in Plant 2. TCE concentrations also exceeded the nonresidential and residential SSGSV at one location in Plant 2 (SSV-02) and the Boiler house (SSV-03). The tank farm enclosure soil gas sample had no exceedance of screening values. Lower concentrations were measured in each sampled location in December 2020. PCE concentrations in sub-slab soil gas did not exceed the nonresidential SSGSV in December 2020. Concentrations of PCE exceeded the residential SSGSV in only one location in Plant 2 (SSV-02). Concentrations of TCE exceeded residential and nonresidential SSGSV in one location in Plant 2 (SSV-05) and exceeded only residential SSGSV in one additional Plant 2 location (SSV-02). Sub-slab soil gas samples in December 2020 were collocated with indoor air samples as part of the vapor intrusion evaluation. Results of the indoor air samples are included below.

5.3 Indoor Air Results

In December 2020, during the heating season, indoor air samples were collected in Plant 2 and the Boiler House. Samples were collected at indoor locations corresponding to the four sub-slab soil gas points (Figure 2). One outdoor air sample was also collected. Samples were collected over an eight-hour period using a Summa® canister. Samples were analyzed for the same list of VOCs analyzed for in sub-slab soil

gas samples using USEPA Method TO-15. The results of this sampling event are summarized in Table 5.3. Laboratory analytical reports are included as Appendix E. Indoor air concentrations were compared to the IRule 2019 Air Screening Levels for both residential and nonresidential receptors. Per the IRule 2019, if values were not available (i.e., toluene, xylenes), results were compared to the USEPA RSL for residential receptors. The following is a summary of the indoor air results.

- PCE concentrations were below the laboratory method detection limits in the Plant 2 building and boiler house. This limit was lower than applicable screening values.
- TCE was estimated at values above the method detection limit but below the reporting limit in three locations in Plant 2 (IA-01, IA-02, and IA-05). These estimated values are below the nonresidential screening level of 0.70 µg/m^3 but exceed the residential screening levels of 0.20 µg/m^3.
- Toluene and xylenes were detected in indoor air but were below the applicable residential screening values.
- Benzene concentrations in indoor air detected below the nonresidential screening level of 1.05 µg/m^3 but exceed the residential screening levels of 0.13 µg/m^3. Benzene indoor air concentrations however were consistent with the concurrent upwind, outdoor air sample (OA-1).

5.4 Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) samples collected to confirm the usability of field analytical results generated are consistent with Precision, Accuracy, Representativeness, Completeness, Comparability and Sensitivity parameters. The following QA/QC samples were collected:

- Field Duplicate Samples: Field duplicate samples were collected to allow the determination of analytical and sampling precision. One field duplicate sample was collected for every 10 groundwater samples, and one field duplicate sample was collected for sub-slab soil gas and indoor air. Parent samples of duplicates were recorded both on field forms and in the field book. Field blanks were analyzed for identical parameters as the corresponding media samples.
- Trip Blanks: Trip blanks were prepared by the laboratory in advance and follow the sample bottles and same shipping containers before returning to the laboratory for analysis with the other samples. Trip blanks were not opened. One trip blank sample was prepared and analyzed for VOCs in groundwater.
- Field Rinseate Blanks (FRBs)/Trip Blanks: FRBs also double as the PFAS trip blank. The FRB was prepared by pouring laboratory-provided, PFAS-free, ultra-pure deionized water into lab-provided sample containers. One FRB was collected for groundwater. The FRB was analyzed for identical parameters as the associated samples.
- Equipment Rinseate Blank: Equipment rinseate blanks were collected to document that the sampling equipment is clean. Two equipment rinseate blanks were collected and analyzed for PFAS. The first blank was collected from an unused section of high-density polypropylene tubing, and the second blank was collected from an unused section of silicone tubing.

All quality assurance and quality control samples were within the limits specified by the analytical laboratory and no data was rejected.

5.5 Investigation Derived Waste

Investigation-derived waste (IDW) consisted of drill cuttings, decontamination fluids and monitoring well groundwater. The liquid and solid waste streams were separately containerized in Department of Transportation approved 55-gallon steel drums and staged for subsequent waste disposal pending

receipt of analytical results and waste profiling. Given that the waste generated from the proposed investigation activities cannot be attributed to a specific manufacturing or industrial operation, the IDW does not qualify as a listed waste.

All containers of IDW were labeled with generator name, Site address, contents, determination status and accumulation start date. IDW was shipped under an approved waste profile to Triumvirate Environmental (Lowell, MA).

6. DISCUSSION AND UPDATED CONCEPTUAL SITE MODEL

This section provides a discussion of the results collected as part of the 2020 site investigation activities. In addition, this section provides an update to the CSM which includes a description of the fate and transport of Site COCs, potential COC migration pathways, updates to potential receptors and exposure pathways, and updates to the CSM based on the results of this investigation. The update to the CSM takes into account data collected as part of the original 2007 SIR as well as approximately 11 years of post-remediation groundwater data collected near and downgradient of Plant 1, 2020 groundwater monitoring data at Plant 2, 2019 and 2020 sub-slab soil gas data at Plant 1 and Plant 2, and 2020 indoor air data at Plant 2.

6.1 Groundwater

6.1.1 VOCs (PCE and TCE)

PCE and TCE were not detected in groundwater samples collected from on-site monitoring wells in July and October 2020, including in the monitoring wells installed in July 2020, in the vicinity of Plant 2. These results indicate that groundwater near Plant 2 has not been impacted by Site activities and that previously completed remediation has successfully treated the historical impacts in the vicinity of the former degreaser in Plant 1. PCE continues to be detected at the highest concentrations (93-100 µg/L) downgradient of the Site (well ERM-12) and at lower a concentration (19 µg/L) further downgradient (well ERM-16). As previously discussed, these concentrations are likely sustained by an off-site source and do not indicate migration of PCE from the Site. As stated in the CAP reports, PCE concentrations have decreased substantially through active remediation and remain stable or continue to decline.

6.1.2 PFAS

Concentrations of PFAS were detected in groundwater around the Site but no sources of PFAS were detected and no evidence of significant PFAS release to the environment was identified. Concentrations and distribution of PFAS in the area of the Site are consistent with anthropogenic sources of PFAS and likely contributed to by the local ChemFab PFAS releases currently being investigated by others (the two ChemFab facilities are 3.5 miles away and 1.2 miles away from the Site).

The highest PFAS concentrations (indicated by the sum of PFOA, PFOS, PFHxS, PFNA, and PFHpA concentrations) were measured in MW-103 (80.9 ng/L in July 2020), at the southwest corner of the Plant 1 building, and in MW-104 (26 ng/L in July 2020), south of the loading dock of the Plant 1 building (Figure 2). South of the Plant 2 building, PFAS were measured in MW-101 at a maximum concentration of 24.4 ng/L in July 2020. Precipitation falling on the roof of the Plant 2 building is collected in a drain system that discharges to a brick and mortar storm sewer that flows along the south of Plant 2, near MW-101. Due to the age and construction of this storm sewer, storm water likely percolates into groundwater through the storm sewer. PFAS deposited on roofs and other impervious surfaces through atmospheric deposition may impact soil through storm water runoff and percolated to groundwater over the past several decades. The variability in atmospheric deposition, storm water runoff, and migration of groundwater near underground infrastructure contributes to the local variability in PFAS concentrations observed near the Site and regionally (Figure 6). PFOA concentrations between 20 and 100 ppt were measured in groundwater 5,000 and 6,500 ft from the Site. Although three samples collected upwind of the Site contained PFOA concentrations <6.7 ppt there is wide spacing (approximately ½ mile) between sampling locations. In other locations with tighter sampling, concentrations have been shown to vary over small distances.

PFAS concentrations measured in October 2020 were equal to or lower than those measured in July 2020 or December 2017, with the exception of monitoring well MW-104. Due to the limited data set for

PFAS, temporal trends cannot be assessed. The low concentrations of PFAS detected in groundwater in and around the Site are not indicative of a source of PFAS impacts to groundwater. It is likely that the PFAS detected at the Site represent background PFAS concentrations in the area. The concentrations detected around the Site are similar to detections in groundwater found in the Bennington area in general (Figure 6). To the extent that there are PFAS impacts in Site groundwater, the distribution of concentrations indicate that storm water runoff, infiltration to groundwater, and the presence of underground infrastructure may be the reason for localized PFAS groundwater exceedances, rather than historical operations at the Site. PFAS impacts to groundwater will be evaluated in the ECAA to determine what further long term monitoring may be appropriate.

6.2 Sub-Slab Soil Gas and Indoor Air (Vapor Intrusion Evaluation)

The 2019 sub-slab soil gas survey (Appendix A) measured PCE and TCE soil gas concentrations above the SSGSVs in several locations under Plant 1. Indoor air sampling was not completed in Plant 1 due to the ongoing operations of the facility. Based on the sub-slab soil gas concentrations measured, additional vapor intrusion evaluation is warranted and vapor intrusion mitigation is likely needed in Plant 1. Vapor mitigation will be evaluated in the upcoming ECAA along with additional pre-design investigation data.

During the 2019 sub-slab soil gas survey, one sample was collected from a temporary sampling point installed in Plant 2 (a vacant building). In this location, the concentrations of PCE and TCE were 25,000 and 300 µg/m^3, respectively. Based on this single sample, additional sub-slab soil gas sampling and then sub-slab soil gas collocated with indoor air sampling was completed as described in the 2020 Work Plan and 2020 Supplemental Work Plan. In 2020, PCE concentrations detected in Plant 2 sub-slab soil gas only exceeded the nonresidential SSGSVs at one location (SSV-02 = 460 µg/m^3) during one of the two 2020 sampling events TCE concentrations exceeded the residential and non-residential SSGV in two locations (SSV-02 [Plant 2] and SSV-03 [boiler house]) with a maximum concentration of 48 µg/m^3 in SSV-03. The November 2019 temporary soil gas location was redrilled and installed with a permanent sampling port in December 2020 and labeled SSV-05. PCE and TCE concentrations from this new permanent point were consistent with data collected in July and December 2020 at the other sub-slab soil gas points. As PCE and TCE concentrations collected during the July and December 2020 sampling events were at least one order-of-magnitude lower than the single 2019 result, the 2019 temporary screening results is not deemed representative of the current sub-slab soil gas conditions of Plant 2. The multiple rounds of PCE and TCE concentrations measured at multiple locations in 2020 are more representative of the current sub-slab soil gas concentrations under Plant 2. The 2019 sample with elevated concentrations was collected from a temporary sampling point and analyzed using a mobile laboratory rather than a permanent, fixed laboratory. Additionally, this was the final sample collected during the 2019 sampling event and may have been affected by carryover from higher concentration samples from Plant 1 that were analyzed previously.

Based on the July 2020 measurement of chloroform concentrations in groundwater exceeding the VT GW VISL$_{RES}$, December 2020 soil-gas and indoor air samples were analyzed for chloroform. Chloroform concentrations in all sub-slab soil gas samples were below the laboratory detection limit. Although chloroform was not detected, the detection limit slightly exceeds the residential SSGSV but is below the nonresidential SSGSV. All indoor air chloroform concentrations were below the nonresidential SSGSV. One sample (IA-03) contained chloroform at an estimated concentration above the residential SSGSV. Chloroform was not detected in the remaining samples but the laboratory detection limit exceeds the residential SSGSV. As chloroform concentrations are below nonresidential standards and it is not a known Site COC, additional investigation of chloroform is not warranted at this time. Depending on the future use of the Site, additional investigation may be necessary.

The following discussion separates out the three buildings evaluated as part of the soil gas/indoor air evaluation: The Tank Farm Enclosure, the Boiler House and Plant 2.

Tank Farm Enclosure

Sub-slab soil gas samples were collected under the Tank Farm Enclosure to understand the potential for subsurface impacts from historical site activities in this area. PCE and TCE concentrations in the tank farm enclosure (SSV-04) were below residential and nonresidential screening values and therefore no additional sampling or indoor air sampling is warranted in this area.

Boiler House

Based on two rounds of sub-slab soil gas sampling performed in 2020, TCE concentrations in soil gas below the boiler house slightly exceeded the SSGSVs for residential and nonresidential receptors.

Indoor air samples collected in December 2020 in the boiler house corresponding to the sub-slab soil gas sampling point did not contain PCE or TCE concentrations above the laboratory method detection limits. Although benzene was detected above the residential indoor air screening value, the concentration (0.30 µg/m^3) matched and was actually less than the concentration of 0.41 µg/m^3 in the upwind, outdoor air sample collected (OA-1). Based on these results, the vapor intrusion pathway in the boiler house does not appear to be complete and VOC concentrations in indoor air in the boiler house do not pose a risk for future residential or nonresidential use, despite the limited exceedance of the nonresident SSGSVs in sub-slab soil gas. No vapor intrusion mitigation is proposed for the boiler house at this time. Depending on the future use of boiler house, additional investigation or mitigation may be necessary.

Plant 2

Based on two rounds of sub-slab soil gas sampling performed in 2020, PCE and TCE concentrations in soil gas below Plant 2 exceeded the SSGSVs for residential and nonresidential receptors.

Indoor air samples collected in December 2020 in Plant 2 corresponding to sub-slab soil gas sampling points did not contain PCE concentrations above method detection limits. Concentrations of TCE in indoor air were below the nonresidential indoor air screening value but above the residential screening level in the three locations (maximum concentration of 0.40 µg/m^3 at IA-02). Benzene was detected above residential screening levels in the three samples but, like at the boiler house, concentrations matched the concentration in the upwind, outdoor air sample collected (OA-1). Based on these results, the vapor intrusion pathway does not appear to be a current significant migration pathway for Plant 2. VOC concentrations in indoor air in Plant 2 do not likely pose a risk for future nonresidential use, despite the exceedances of the nonresident SSGSVs. No vapor intrusion mitigation is currently proposed unless Plant 2 needs to meet residential use standards. Depending on the future use of Plant 2, additional investigation or mitigation may be necessary.

6.3 Environmental Fate & Transport of Site Constituents of Concern

This section provides a brief summary of the physical and chemical properties of Site COCs detected in either groundwater or soil gas. PCE, TCE and PFAS are the Site COCs. PCE and PFAS are the primary compounds detected in groundwater samples. TCE was originally detected in groundwater in the 2007 SIR but has not been detected in Site groundwater in recent years following remediation. PCE and TCE are the primary compounds detected in soil gas. Existing and potential migration pathways are also described for each class of compounds.

6.3.1 Physical and Chemical Properties of Site COCs

Mercury and lead were sampled for as part of the 2020 Site investigation activities due to their historical use in either Plant 1 or Plant 2. These metals however were not detected in Site groundwater and are therefore not considered Site COCs.

A detailed description of the physical and chemical properties of PCE and TCE can be found in ERM's 2007 SIR, including a summary on aqueous solubility, vapor pressure, henry's law constant, viscosity and density, organic carbon partition coefficient, degradation processes, persistence, and mobility (Section 4.4.2 of the 2007 SIR). Briefly, PCE and TCE are chlorinated solvents that are characterized by moderate aqueous solubility, high vapor pressures, densities greater than water, and their ability to partition onto organic carbon. These properties can cause low concentrations to persist in groundwater and soil gas. PCE and TCE can be biodegraded sequentially to dichloroethene isomers, vinyl chloride, and, ultimately, non-toxic ethene. Biodegradation of chlorinated ethenes can occur under natural conditions, allowing the low concentrations measured at the Site to decrease over time.

PFAS include numerous compounds with a wide array of physical and chemical properties. The PFAS detected in Site groundwater consist of fully fluorinated carboxylic acids (PFOA, PFHxA) or sulfonic acids (PFOS, PFBS). PFOA is soluble in water ($9.5x10^3$ mg/L at 25°C), does not volatilize (vapor pressure of 0.525 mm Hg at 25°C), and has a moderate potential to adsorb to organic carbon in soil (K_{oc} of 2.06). PFOS is less soluble in water (680 mg/L at 25°C) but otherwise behaves similarly to PFOA (vapor pressure of 0.002 mm Hg at 25°C and (K_{oc} of 2.57). PFOA and PFOS are the most widely studied PFAS; less data is available for other compounds. PFHxA has properties similar to PFOA due to the similar molecule size and configuration. PFBS is a shorter-chain PFAS so it is more volatile and soluble than PFOS and has less affinity to adsorb to organic carbon. There are no known degradation pathways for the PFAS detected (AECOM 2019; USEPA 2017).

6.3.2 Existing and Potential Migration Pathways

VOCs (specifically PCE) and PFAS in groundwater have the potential to migrate with groundwater, into surface water, and VOCs also may migrate into soil gas. VOCs in soil gas have the potential to migrate to indoor air as described in the section below. PFAS are unlikely to migrate into soil gas due to their physical and chemical properties including low vapor pressures.

6.3.2.1 Migration in Groundwater

PCE and PFAS have been detected in groundwater and can migrate along groundwater flow pathways. Based on groundwater elevation measurements, groundwater at the Site flows to the northwest as shown in Figures 3a and 3b. As PCE can naturally biodegrade in groundwater, the extent of its migration within groundwater is limited and the extent of detectable PCE concentrations will decrease over time. A site-specific assessment of PCE degradation and plume longevity will be completed as part of the ECAA to determine if monitored natural attenuation and/or continued long term monitoring may be an appropriate remedy for PCE in Site groundwater. This assessment will not include off-site PCE sources. PFAS are also likely to migrate with groundwater flow. As there is no known degradation pathway for PFAS, the extent of migration is controlled by dilution and adsorption to soil organic carbon. The PFAS concentrations measured in and around the Site do not indicate a defined source area that will contribute to elevated groundwater concentrations in the future.

6.3.2.2 Migration in Groundwater to Surface Water

As described above, PCE and PFAS can be transported in groundwater and would discharge to surface water with groundwater. Based on groundwater flow to the northwest, groundwater may discharge to the Walloomsac River greater than 0.5 miles from the Site. The upgradient reach of the Walloomsac River

south of Plant 2 has been identified as a losing stream; thus, groundwater from the Site would not discharge to the adjacent reaches of the river. Based on distance from the Site to a surface water body, the biodegradation potential of PCE, and the lack of a high concentration PFAS source area, migration of Site COCs in groundwater to surface water is unlikely but will be evaluated in the ECAA.

6.3.2.3 Migration in Groundwater to Soil Gas

PCE in groundwater has the potential to migrate to soil gas due to its high vapor pressure. PCE has been detected in soil gas on-site, likely due to the migration of PCE from groundwater. The PFAS detected in groundwater have low vapor pressures and are unlikely to migrate from groundwater to soil gas.

6.3.2.4 Migration in Soil Gas to Indoor Air (Vapor Intrusion)

PCE and TCE were detected in soil gas below the Plant 2 building but were either not detected in indoor air above applicable nonresidential risk-based screening levels, or were not detected above laboratory method detection limits. Data collected to date indicate that this is not a significant pathway for migration from soil gas to indoor air under current industrial use. PCE and TCE were detected in soil gas below Plant 1 (2019 soil gas survey) and concentrations have the potential for soil gas to migrate into indoor air. Plant 1 is still in operation, so indoor air samples have not been collected to date. The potential completion of the soil gas to indoor air pathway and plans to mitigate potential vapor intrusion will be assessed in the upcoming ECAA. The PFAS detected at the Site are non-volatile and will not migrate to indoor air.

6.4 Receptors and Exposure Pathway Assessment

An exposure assessment was completed to evaluate the potential pathways and receptors that could be exposed to COCs in Site groundwater or soil gas under current or reasonably foreseeable conditions. A qualitative risk characterization was completed as part of the 2007 SIR which included an exposure assessment. The assessment below is an update to the 2007 assessment in consideration of 11 years of Plant 1 post-remediation groundwater data, groundwater monitoring data at Plant 2, sub-slab soil gas data at Plant 1 and Plant 2, and indoor air data at Plant 2. Site soil was not included in this assessment, as soil was not investigated during the 2020 investigation. An evaluation of Site soil is included in the 2007 SIR.

The potential exposure routes include:

- Potential direct contact with groundwater (dermal, ingestion, and inhalation) for PCE and PFAS; and
- Potential inhalation of soil gas vapors containing volatiles (PCE and TCE) via vapor intrusion.

It is unlikely that impacted groundwater is discharging to surface water or wetlands; therefore, surface water is not considered as an exposure route.

The following receptors were considered for the identified potential exposure routes:

- On-Site Workers – Due to the depth to groundwater, direct inhalation of vapors from exposed groundwater by onsite workers (both for current and future use) is not considered a complete pathway. Soil gas concentrations under Plant 1 indicated elevated soil gas concentrations (above nonresident SSGSVs for PCE and TCE) so exposure of both current and future on-Site workers in Plant 1 to soil gas vapor via vapor intrusion is considered a potentially complete pathway. Soil gas samples under Plant 2 and the boiler house also indicated elevated soil gas concentrations (above nonresident SSGSVs for PCE and TCE), indoor air concentrations collected in both spaces, however did not show concentrations above nonresident Indoor Air Standards.

Therefore, inhalation via vapor intrusion for current and future on-Site workers in Plant 2 (currently vacant) and the boiler house is not considered a complete pathway due to attenuation of soil gas by the existing slab and building configuration. Plant 2 and the boiler house's potential future commercial or industrial use is unknown therefore the potential future exposure for onsite workers in these buildings for vapor intrusion remains a potentially complete pathway, depending on changes to the building configuration. In addition, Site groundwater is not used for drinking, irrigation, or other purpose, so there is no complete pathway for PFAS to impact on-site workers.

- On-Site Construction and Utility Workers – Construction/utility workers could be exposed to groundwater via contact or ingestion during normal work activities. Following remediation, Site groundwater VOC concentrations were substantially reduced across the Site. PCE concentrations exceeding VTGWQES are limited to the northernmost portion of the Site and are assumed to derive from an off-site source. Although PFAS concentrations exceed the VTGWQES in two locations, the concentrations are likely representative of background conditions. Because PCE and PFAS concentrations likely originated off-site, exposure of on-site construction/utility workers was not evaluated as a complete pathway.
- On-Site Residents – The Site is currently either unoccupied (portions) or only occupied by industrial workers so no current site residential receptors exist. Future site use is unknown at this time so potential future exposure of future residents remains a potentially complete future pathway.
- Downgradient Construction and Utility Workers – Construction/utility workers could be exposed to groundwater via contact or ingestion during normal work activities. Off-site groundwater that remains above VTGWQES (PCE) is observed at the northwest property boundary and downgradient of the Site. Remaining impacts to groundwater are likely contributed to by the off-site vadose zone source discussed in the preliminary CSM (Section 3.4). This source did not migrate from the Energizer property; therefore, downgradient construction/utility worker receptors were not evaluated as a complete pathway. Similarly, PFAS likely originated off-site and downgradient construction/utility worker receptors were not evaluated as a complete pathway.
- Downgradient Residents – Downgradient residents could potentially be exposed to groundwater via contact or ingestion, or could potentially be exposed to soil vapor via vapor intrusion. As described above, the remaining off-site impacts to groundwater (PCE) are likely contributed to by the off-site vadose zone source discussed in the preliminary CSM. This source did not migrate from the Energizer property; therefore, downgradient residential receptors were not evaluated as a complete pathway. Similarly, PFAS likely originated off-site and downgradient residential receptors were not evaluated as a complete pathway.
- Ecological receptors – There are no Threatened or Endangered Species within 5,000 feet of the Site. Therefore, exposure of ecological receptors was not evaluated as a complete pathway.

6.5 Conceptual Site Model Updates

Based on the data collected during the Supplemental Site Investigation, mercury and lead are not present in Site groundwater despite their historical use at the Site. Although these metals were used in the manufacturing of batteries, no significant releases to the environment occurred that resulted in any impacts to groundwater. Since mercury and lead have not been detected in Site groundwater, mercury and lead are not considered COCs and will not be further evaluated.

Groundwater elevation measurements and interpolated contours and flow directions were updated based on measurements made in July and October 2020 (Figures 3a and 3b). The groundwater flow direction is to the northwest, consistent with previous measurement and the preliminary CSM.

Groundwater sampling performed in July and October 2020, as well as groundwater data collected since the 2007 SIR, confirm the CSM for CVOCs at the Site. TCE concentrations have been reduced to below VTGWQES by active remediation previously completed at the Site. No sources of TCE or detections of TCE were observed following the 2020 additional investigation around Plant 2. PCE continues to be detected in groundwater, with the highest concentrations near the northwest property boundary of the Site and a low concentration plume extending in the direction of groundwater flow, to the northwest. As detailed in the preliminary CSM, there are soil gas impacts on the residential properties north of the Plant 1 alley that are likely due to the presence of a separate and distinct off-site source of PCE in soil that did not migrate from the Energizer property. This off-Site source is contributing to the downgradient PCE concentrations in groundwater, causing property boundary and downgradient concentrations of PCE to remain above VTGWQES, while on-Site groundwater concentrations are at or below VTGWQES. Based on groundwater PCE concentrations since 2009, concentrations have not increased, and are expected to decline over time through natural attenuation.

PFAS were not included in the preliminary CSM. Of the PFAS detected, only PFOA was detected in all locations sampled. The isolated and low concentrations of other PFAS are consistent with anthropogenic background and are not included in the CSM. Variability in PFAS concentrations within and immediately downgradient of the Site are consistent with the variability noted in hundreds of groundwater samples collected over the area over the past several years (Figure 6). PFAS are unlikely to be migrating in groundwater from a high concentration source area at the Site. Based on Site records, products potentially containing PFAS were used at the Site (in particular in Plant 2), but they were used as finished products and were unlikely to have released PFOA to Site soils and/or groundwater. The major source of PFOA in the Bennington area is the former ChemFab facility that used PTFE dispersions containing PFOA. Emissions of PFOA from the ChemFab facility to the air are known to have deposited on soils and impacted groundwater in substantial portions of Bennington, although the precise extent of these impacts is currently under investigation (Figure 6). To the extent that there are PFAS impacts in Site groundwater, the distribution of concentrations indicate background concentrations from anthropogenic sources with storm water and subsurface infrastructure as the likely predominant distribution pathway.

Based on the 2019 sub-slab soil gas survey, PCE and TCE are present in sub-slab soil gas below Plant 1. Indoor air was not assessed during this supplemental Site investigation. PCE and TCE concentrations under Plant 2 and the boiler house are present at lower concentrations than under Plant 1 based on the results of this supplemental site investigation. PCE and TCE are not present under the tank farm enclosure. As PCE and TCE concentrations in Site groundwater are below laboratory detection limits, the concentrations measured in soil gas are likely sustained by low concentrations of these compounds adsorbed to organic matter in soils under Site buildings. As these compounds volatize into soil gas, the concentrations will decrease over time through natural attenuation.

6.6 Accomplishment of Site Investigation Objectives

In accordance with § 35-302(a) of the IRule 2019, the objectives of a site investigation are to:

(a) Develop a Conceptual Site Model (CSM) in accordance with § 35-303;

(b) Identify the source, degree, and spatial extent of contamination in all impacted or potentially impacted environmental media;

(c) Identify pathways that are conveying or could convey hazardous materials to sensitive receptors;

(d) Identify sensitive receptors that have been or may be impacted by the release;

(e) Identify data gaps that must be addressed to confirm the CSM or evaluate corrective action alternatives; and

(f) Identify the need to conduct further investigation or corrective action based on the results of all site characterization data gathered to date.

The supplemental site investigation described in this report has accomplished these objectives as follows:

(a) The preliminary CMS described in Section 3.4 has been updated as described in Section 6.1;

(b) The source, degree, and spatial extent of contamination has been documented in previous investigations (Section 3.2) and updated as described in Section 5.0;

(c) Pathways that could convey hazardous materials to sensitive receptors are described in Section 6.4;

(d) Sensitive receptors were previously identified in the 2007 SIR and have been updated based on this report as described in Section 6.4;

(e) No data gaps have been identified, and an ECAA is proposed as described in Section 7.0; and

(f) A discussion of the need for further evaluation and corrective action can be found in Section 7.0.

7. CONCLUSIONS AND RECOMMENDATIONS

Investigations completed in 2020 of groundwater, sub-slab soil gas, and indoor air supplemented investigation and remediation activities that have been previously completed at the Site between 2006 and the present.

Based on the cumulative investigations completed to date, the following conclusions can be summarized:

- Mercury is not present in Site groundwater despite its historical use at the Site;
- Lead is not present in Site groundwater despite its historical use at the Site;
- PCE continues to be detected in groundwater downgradient (northwest) of the Site;
- PCE concentrations are consistent with historical trends and are predicted to decrease through natural attenuation;
- PFAS (primarily PFOA) have been detected in groundwater in and around the Site;
- PFAS concentrations in groundwater vary and, via multiple lines of evidence, no sources of PFAS releases have been identified on the Energizer property (e.g. no known historical releases, no significantly elevated concentrations in groundwater). Concentrations appear to be attributed to impacts from air deposition and/or storm water infiltration, likely from off-Site sources, but will continue to be monitored as detailed below in the recommendations. PCE and TCE concentrations in sub-slab soil gas exceed residential and nonresidential screening values in some locations below the Plant 1 building;
- PCE and TCE concentrations in sub-slab soil gas exceed residential and nonresidential screening values in some locations below the Plant 2 building and boiler house;
- PCE was not detected in indoor air in the Plant 2 building or the boiler house;
- TCE was not detected in indoor air in the boiler house; and
- TCE was not detected above nonresidential screening values in the Plant 2 building.

As noted in the discussion section above, the following receptors have been identified as potential completed exposure pathways for either current and/or future Site use:

- Current and Future on-Site workers in Plant 1 as a result of the potential for soil gas to migrate into indoor air via vapor intrusion;
- Potential future residents in Plant 1 and Plant 2 may be receptors as the future building use has not been determined.

There are no complete exposure pathways for receptors to groundwater that are related to the Energizer Site; however it is recommended that Energizer continue with the current groundwater monitoring schedule, add PFAS sampling to the monitoring plan, and propose a long term monitoring plan for groundwater at the Site, including a groundwater management plan to limit exposure to PCE and/or PFAS derived from off-site sources.

For the potential completed exposure pathways related to the potential for vapor intrusion, it is recommended that pre-design investigations within Plant 1 be completed to size and design sub-slab mitigation systems for appropriate portions of the building. It is not currently recommended that mitigation be completed for Plant 2 and the Boiler House due to the relatively low-level concentration in the soil gas and the absence of significant indoor air concentrations; however, if future use plans for these buildings change, mitigation within this portion of the Site may also be warranted.

Based on the data collected, Energizer has completed Site investigation activities and does not recommend further investigation at this time, with the exception of pre-design soil gas investigations under Plant 1 as detailed above. Energizer plans to complete and submit an ECAA based on these findings and the results of previous investigations. The ECAA will address the mitigation of the potential for vapor intrusion in the Plant 1 building, the long term monitoring strategy for PFAS and PCE in groundwater, and the potential need for institutional controls with respect to future property usage.

8. SIGNATURE AND CERTIFICATION

Signatures of the environmental professionals are included on the signature page at the beginning of this document. Each signatory certifies under penalty of perjury to be an environmental professional and that all content contained within this SSIR is true and correct to the best of his/her knowledge.

9. REFERENCES

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TABLES

Table 5.1a
Groundwater Summary Table - Metals
ENERGIZER Bennington Facility
Bennington, Vermont

Analyte	Unit	Location ID Sample Date Sample Type Depth VT-GW-ENF-STDS-2019	ERM-5MA 14-Jul-20 N -	ERM-5S 14-Jul-20 N -	ERM-6 14-Jul-20 N -	ERM-6 14-Jul-20 FD -	ERM-8 14-Jul-20 N -	ERM-11S 14-Jul-20 N -	MW-101 13-Jul-20 N 5 - 10 ft	MW-101 13-Jul-20 N 10 - 15 ft	MW-102 13-Jul-20 N 5 - 10 ft	MW-102 13-Jul-20 N 10 - 15 ft	MW-102 13-Jul-20 FD 10 - 15 ft	MW-103 13-Jul-20 N 8 - 13 ft	MW-103 13-Jul-20 N 13 - 18 ft	MW-104 13-Jul-20 N 5 - 10 ft	MW-104 13-Jul-20 N 10 - 15 ft
Method SW6010C, Total																	
Lead	mg/L	0.015	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*	*< 0.010*
Method SW7470A, Total																	
Mercury	mg/L	0.002	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*	*< 0.00020*

Notes:
< = Compound not detected at concentrations above the laboratory reporting limit. The laboratory reporting limit is shown.
mg/L = milligrams per liter
ft = feet
VT-GW-ENF-STDS-2019 = Vermont Department of Environmental Conservation Groundwater Enforcement Standards, 2019.

Table 5.1b
Groundwater Summary Table - VOCs
ENERGIZER Bennington Facility
Bennington, Vermont

Analyte	Unit	VT-GW-ENF-STDS-2019	VT-IRULE-GWVI-NONRES-2019	VT-IRULE-GWVI-RES-2019	Location ID	ERM-8	ERM-12	ERM-12	ERM-12	ERM-12	ERM-16	ERM-16	MW-101	MW-101	MW-101	MW-102
					Sample Date	26-Oct-20	14-Jul-20	14-Jul-20	26-Oct-20	26-Oct-20	14-Jul-20	26-Oct-20	13-Jul-20	13-Jul-20	27-Oct-20	13-Jul-20
					Sample Type	N	N	FD	N	FD	N	N	N	N	N	N
					Depth	-	-	-	-	-	-	-	5 - 10 ft	10 - 15 ft	-	5 - 10 ft
Method SW8260C																
1,1,1-Trichloroethane	µg/L	200	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2,2-Tetrachloroethane	µg/L	0.076^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	µg/L	1000^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2-Trichloroethane	µg/L	5	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1-Dichloroethane	µg/L	70	34	4.2		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1-Dichloroethene	µg/L	7	950	270		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2,4-Trichlorobenzene	µg/L	70	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dibromo-3-chloropropane	µg/L	0.2	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichlorobenzene	µg/L	600	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloroethane	µg/L	5	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloropropane	µg/L	5	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,3-Dichlorobenzene	µg/L	600	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Dichlorobenzene	µg/L	75	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Difluorobenzene	µg/L	NS	NS	NS		*< 1.0*			*< 1.0*	*< 2.0*		*< 1.0*			*< 1.0*	
2-Butanone	µg/L	511	NS	NS		*< 10*	*< 20*	*< 20*	*< 10*	*< 20*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*
2-Hexanone	µg/L	38^	NS	NS		*< 5*	*< 10*	*< 10*	*< 5*	*< 10*	*< 5.0*	*< 5*	*< 5.0*	*< 5.0*	*< 5*	*< 5.0*
4-Methyl-2-pentanone	µg/L	6300^	NS	NS		*< 5*	*< 10*	*< 10*	*< 5*	*< 10*	*< 5.0*	*< 5*	*< 5.0*	*< 5.0*	*< 5*	*< 5.0*
Acetone	µg/L	950	NS	NS		*< 10*	*< 20*	*< 20*	*< 10*	*< 20*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*
Benzene	µg/L	5	7.4	0.92		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Bromodichloromethane	µg/L	0.13^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Bromoform	µg/L	3.3^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Carbon disulfide	µg/L	810^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Carbon tetrachloride	µg/L	5	1.9	0.24		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chlorobenzene	µg/L	100	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chloroethane	µg/L	21000^	110000	31000		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chloroform	µg/L	0.22^	3.7	**0.41**		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	**0.35 J**	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
cis-1,2-Dichloroethene	µg/L	70	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
cis-1,3-Dichloropropene	µg/L	370^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Cyclohexane	µg/L	13000^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Dibromochloromethane	µg/L	0.87^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Dichlorodifluoromethane (Freon 12)	µg/L	200^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Ethylbenzene	µg/L	700	18	2.2		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Ethylene dibromide	µg/L	0.05	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Isopropylbenzene (Cumene)	µg/L	450^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl acetate	µg/L	20000^	NS	NS		*< 2.5*	*< 5.0*	*< 5.0*	*< 2.5*	*< 5.0*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*
Methyl bromide	µg/L	5	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl chloride	µg/L	190^	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl tert-butyl ether	µg/L	11	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methylcyclohexane	µg/L	NS	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methylene chloride	µg/L	5	9300	680		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Styrene	µg/L	100	NS	NS		*< 1.0*	*< 2.0*	*< 2.0*	*< 1.0*	*< 2.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Tetrachloroethene	µg/L	**5**	**12**	**1.5**		< 1.0	**93**	**92**	**100**	**92**	**19**	**19**	*< 1.0*	*< 1.0*	**0.94 J**	*< 1.0*
Toluene	µg/L	1,000	NS	NS		< 1.0	*< 2.0*	*< 2.0*	< 1.0	< 2.0	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*
trans-1,2-Dichloroethene	µg/L	100	NS	NS		< 1.0	*< 2.0*	*< 2.0*	< 1.0	< 2.0	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*
trans-1,3-Dichloropropene	µg/L	0.47^	NS	NS		< 1.0	*< 2.0*	*< 2.0*	< 1.0	< 2.0	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*
Trichloroethene	µg/L	5	2.9	0.82		< 1.0	*< 2.0*	*< 2.0*	< 1.0	< 2.0	*< 1.0*	< 1.0	**0.65 J**	**0.70 J**	< 1.0	*< 1.0*

Analyte	Unit	VT-GW-ENF-STDS-2019	VT-IRULE-GWVI-NONRES-2019	VT-IRULE-GWVI-RES-2019	Location ID	ERM-8	ERM-12	ERM-12	ERM-12	ERM-12	ERM-16	ERM-16	MW-101	MW-101	MW-101	MW-102
					Sample Date	26-Oct-20	14-Jul-20	14-Jul-20	26-Oct-20	26-Oct-20	14-Jul-20	26-Oct-20	13-Jul-20	13-Jul-20	27-Oct-20	13-Jul-20
					Sample Type	N	N	FD	N	FD	N	N	N	N	N	N
					Depth	-	-	-	-	-	-	-	5 - 10 ft	10 - 15 ft	-	5 - 10 ft
Trichlorofluoromethane (Freon 11)	µg/L	5200^	NS	NS		< 1.0	*< 2.0*	*< 2.0*	< 1.0	< 2.0	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*
Vinyl chloride	µg/L	2	2.2	0.13		< 1.0	*< 2.0*	*< 2.0*	< 1.0	< 2.0	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*
Xylene, Total	µg/L	10,000	NS	NS		< 2.0	*< 4.0*	*< 4.0*	< 2.0	< 4.0	*< 2.0*	< 2.0	*< 2.0*	*< 2.0*	< 2.0	*< 2.0*

Notes:
< = Compound not detected at concentrations above the laboratory reporting limit. The laboratory reporting limit is shown.
Empty cells = Not analyzed
NS = No Standard
µg/L = micrograms per liter
ft = feet
Qualifiers - Organic:
J = The analyte was positively identified; associated numerical value is the approximate concentration of the analyte in the sample.
^VT-GW-ENF-STDS not established. USEPA Tapwater regional screening levels, November 2020. Lowest of carcinogenic screening level, noncarcinogenic screening level, or maximum contaminant level shown.
VT-GW-ENF-STDS-2019 = Vermont Department of Environmental Conservation Groundwater Enforcement Standards, 2019.
VT-IRULE-GWVI-NONRES-2019 = Vermont Department of Environmental Conservation Vapor Intrusion Standards - Groundwater, nonresidential. Investigation and Remediation of Contaminated Properties Rule, July 2019
VT-IRULE-GWVI-RES-2019 = Vermont Department of Environmental Conservation Vapor Intrusion Standards - Groundwater, residential. Investigation and Remediation of Contaminated Properties Rule, July 2019

Table 5.1b
Groundwater Summary Table - VOCs
ENERGIZER Bennington Facility
Bennington, Vermont

Analyte	Unit	VT-GW-ENF-STDS-2019	VT-IRULE-GWVI-NONRES-2019	VT-IRULE-GWVI-RES-2019	Location ID	ERM-8	MW-102	MW-102	MW-102	MW-103	MW-103	MW-103	MW-104	MW-104	MW-104
					Sample Date	26-Oct-20	13-Jul-20	13-Jul-20	27-Oct-20	13-Jul-20	13-Jul-20	26-Oct-20	13-Jul-20	13-Jul-20	26-Oct-20
					Sample Type	N	N	FD	N	N	N	N	N	N	N
					Depth	-	10 - 15 ft	10 - 15 ft	-	8 - 13 ft	13 - 18 ft	-	5 - 10 ft	10 - 15 ft	-
Method SW8260C															
1,1,1-Trichloroethane	µg/L	200	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2,2-Tetrachloroethane	µg/L	0.076^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	µg/L	1000^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2-Trichloroethane	µg/L	5	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1-Dichloroethane	µg/L	70	34	4.2		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1-Dichloroethene	µg/L	7	950	270		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2,4-Trichlorobenzene	µg/L	70	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dibromo-3-chloropropane	µg/L	0.2	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichlorobenzene	µg/L	600	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloroethane	µg/L	5	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloropropane	µg/L	5	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,3-Dichlorobenzene	µg/L	600	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Dichlorobenzene	µg/L	75	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Difluorobenzene	µg/L	NS	NS	NS		*< 1.0*			*< 1.0*			*< 1.0*			*< 1.0*
2-Butanone	µg/L	511	NS	NS		*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*
2-Hexanone	µg/L	38^	NS	NS		*< 5*	*< 5.0*	*< 5.0*	*< 5*	*< 5.0*	*< 5.0*	*< 5*	*< 5.0*	*< 5.0*	*< 5*
4-Methyl-2-pentanone	µg/L	6300^	NS	NS		*< 5*	*< 5.0*	*< 5.0*	*< 5*	*< 5.0*	*< 5.0*	*< 5*	*< 5.0*	*< 5.0*	*< 5*
Acetone	µg/L	950	NS	NS		*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*
Benzene	µg/L	5	7.4	0.92		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Bromodichloromethane	µg/L	0.13^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Bromoform	µg/L	3.3^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Carbon disulfide	µg/L	810^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Carbon tetrachloride	µg/L	5	1.9	0.24		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chlorobenzene	µg/L	100	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chloroethane	µg/L	21000^	110000	31000		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chloroform	µg/L	0.22^	3.7	**0.41**		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	**0.55 J**	**0.65 J**	*0.49 J*	**1.3**	**1.3**	**0.81 J**
cis-1,2-Dichloroethene	µg/L	70	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
cis-1,3-Dichloropropene	µg/L	370^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Cyclohexane	µg/L	13000^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Dibromochloromethane	µg/L	0.87^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Dichlorodifluoromethane (Freon 12)	µg/L	200^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Ethylbenzene	µg/L	700	18	2.2		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Ethylene dibromide	µg/L	0.05	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Isopropylbenzene (Cumene)	µg/L	450^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl acetate	µg/L	20000^	NS	NS		*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*	*< 2.5*
Methyl bromide	µg/L	5	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl chloride	µg/L	190^	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl tert-butyl ether	µg/L	11	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methylcyclohexane	µg/L	NS	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methylene chloride	µg/L	5	9300	680		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Styrene	µg/L	100	NS	NS		*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Tetrachloroethene	µg/L	**5**	**12**	**1.5**		< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0
Toluene	µg/L	1,000	NS	NS		< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0
trans-1,2-Dichloroethene	µg/L	100	NS	NS		< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0
trans-1,3-Dichloropropene	µg/L	0.47^	NS	NS		< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0
Trichloroethene	µg/L	5	2.9	0.82		< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0

Analyte	Unit	VT-GW-ENF-STDS-2019	VT-IRULE-GWVI-NONRES-2019	VT-IRULE-GWVI-RES-2019	Location ID	ERM-8	MW-102	MW-102	MW-102	MW-103	MW-103	MW-103	MW-104	MW-104	MW-104
					Sample Date	26-Oct-20	13-Jul-20	13-Jul-20	27-Oct-20	13-Jul-20	13-Jul-20	26-Oct-20	13-Jul-20	13-Jul-20	26-Oct-20
					Sample Type	N	N	FD	N	N	N	N	N	N	N
					Depth	-	10 - 15 ft	10 - 15 ft	-	8 - 13 ft	13 - 18 ft	-	5 - 10 ft	10 - 15 ft	-
Trichlorofluoromethane (Freon 11)	µg/L	5200^	NS	NS		< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0
Vinyl chloride	µg/L	2	2.2	0.13		< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0	*< 1.0*	*< 1.0*	< 1.0
Xylene, Total	µg/L	10,000	NS	NS		< 2.0	*< 2.0*	*< 2.0*	< 2.0	*< 2.0*	*< 2.0*	< 2.0	*< 2.0*	*< 2.0*	< 2.0

Notes:
< = Compound not detected at concentrations above the laboratory reporting limit. The laboratory reporting limit is shown.
Empty cells = Not analyzed
NS = No Standard
µg/L = micrograms per liter
ft = feet
Qualifiers - Organic:
J = The analyte was positively identified; associated numerical value is the approximate concentration of the analyte in the sam
^VT-GW-ENF-STDS not established. USEPA Tapwater regional screening levels, November 2020. Lowest of carcinogenic scr
VT-GW-ENF-STDS-2019 = Vermont Department of Environmental Conservation Groundwater Enforcement Standards, 2019.
VT-IRULE-GWVI-NONRES-2019 = Vermont Department of Environmental Conservation Vapor Intrusion Standards - Groundw
VT-IRULE-GWVI-RES-2019 = Vermont Department of Environmental Conservation Vapor Intrusion Standards - Groundwater,

Table 5.1c
Groundwater Summary Table - PFAS
ENERGIZER Bennington Facility
Bennington, Vermont

Analyte	Unit	Location ID Sample Date Sample Type Depth VT-GW-ENF-STDS-2019	MW-101 13-Jul-20 N 5 - 10 ft	MW-101 13-Jul-20 N 10 - 15 ft	MW-101 27-Oct-20 N -	MW-102 13-Jul-20 N 5 - 10 ft	MW-102 13-Jul-20 N 10 - 15 ft	MW-102 27-Oct-20 N -	MW-102 13-Jul-20 FD 10 - 15 ft	MW-103 13-Jul-20 N 8 - 13 ft	MW-103 13-Jul-20 N 13 - 18 ft	MW-103 26-Oct-20 N -	MW-104 13-Jul-20 N 5 - 10 ft	MW-104 13-Jul-20 N 10 - 15 ft	MW-104 26-Oct-20 N -	ERM-8 26-Oct-20 N -
Method E537 MODIFIED																
Perfluorobutane sulfonic acid (PFBS)	ng/l	400^	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	**2.9**	**2.4**	< 1.6	**2.6**	**2.5**	**2.1**	*< 1.8*
Perfluorodecanoic acid (PFDA)	ng/l	NS	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	*< 1.9*	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	*< 1.7*	*< 1.8*
Perfluorododecanoic acid (PFDoDA)	ng/l	NS	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	*< 1.9*	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	< 1.7	*< 1.8*
Perfluoroheptanoic acid (PFHpA)	ng/l	20*	**3.4**	**3.1**	*< 1.7*	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	**5.7**	**3.0**	**2.0**	*< 1.9*	**2.0**	**3.4**	*< 1.8*
Perfluorohexane sulfonic acid (PFHxS)	ng/l	20*	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	*< 1.9*	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	< 1.7	*< 1.8*
Perfluorohexanoic acid (PFHxA)	ng/l	NS	**3.6**	**3.9**	*< 1.7*	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	**2.3**	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	**3.2**	*< 1.8*
Perfluorononanoic acid (PFNA)	ng/l	20*	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	*< 1.9*	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	< 1.7	*< 1.8*
Perfluorooctane sulfonic acid (PFOS)	ng/l	20*	**3.0**	**2.6**	**2.3 I**	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	**2.2**	**2.1**	**1.6**	**2.9**	**3.0**	**2.6**	*< 1.8*
Perfluorooctanoic acid (PFOA)	ng/l	**20***	**18**	**21**	**11**	**3.7**	**2.6**	**3.2**	**2.9**	**73**	**38**	**29**	**20**	**21**	**33**	**3.4**
Perfluorotetradecanoic acid (PFTeDA)	ng/l	NS	*< 1.6*	*< 1.7*	< 1.7	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	*< 1.9*	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	*< 1.7*	< 1.8
Perfluorotridecanoic acid (PFTrDA)	ng/l	NS	*< 1.6*	*< 1.7*	< 1.7	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	*< 1.9*	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	*< 1.7*	< 1.8
Perfluoroundecanoic acid (PFUnDA)	ng/l	NS	*< 1.6*	*< 1.7*	< 1.7	*< 1.7*	*< 1.8*	< 1.7	*< 1.7*	*< 1.9*	*< 2.0*	< 1.6	*< 1.9*	*< 1.8*	*< 1.7*	< 1.8
Sum of PFOA, PFOS, PFNA, PFHxS, PFHpA	ng/l	**20***	***24.4***	***26.7***	***13.3***	***3.7***	***2.6***	***3.2***	***2.9***	***80.9***	***43.1***	***32.6***	***22.9***	***26***	***39***	***3.4***

Notes:
< = Compound not detected at concentrations above the laboratory reporting limit. The laboratory reporting limit is shown.
NS = No Standard
ng/l = nanogram per liter
ft = feet
*Groundwater enforcement standard defined as sum of any combination of PFOA, PFOS,PFHxS, PFHpA, and PFNA
Qualifiers - Organic:
J = The analyte was positively identified; associated numerical value is the approximate concentration of the analyte in the sample.
^VT-GW-ENF-STDS not established. USEPA Tapwater regional screening levels, November 2020. Lowest of carcinogenic screening level, noncarcinogenic screening level, or maximum contaminant level shown.
VT-GW-ENF-STDS-2019 = Vermont Department of Environmental Conservation Groundwater Enforcement Standards, 2019.

Table 5.1c
Groundwater Summary Table - PFAS
ENERGIZER Bennington Facility
Bennington, Vermont

Analyte	Unit	Location ID Sample Date Sample Type Depth VT-GW-ENF-STDS-2019	MW-101 13-Jul-20 N 5 - 10 ft	ERM-12 26-Oct-20 N -	ERM-12 26-Oct-20 FD -	ERM-16 26-Oct-20 N -
Method E537 MODIFIED						
Perfluorobutane sulfonic acid (PFBS)	ng/l	400^	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorodecanoic acid (PFDA)	ng/l	NS	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorododecanoic acid (PFDoDA)	ng/l	NS	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Perfluoroheptanoic acid (PFHpA)	ng/l	20*	**3.4**	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorohexane sulfonic acid (PFHxS)	ng/l	20*	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorohexanoic acid (PFHxA)	ng/l	NS	**3.6**	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorononanoic acid (PFNA)	ng/l	20*	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorooctane sulfonic acid (PFOS)	ng/l	20*	**3.0**	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorooctanoic acid (PFOA)	ng/l	**20***	**18**	**6.3**	**6.7**	**9.8**
Perfluorotetradecanoic acid (PFTeDA)	ng/l	NS	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Perfluorotridecanoic acid (PFTrDA)	ng/l	NS	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Perfluoroundecanoic acid (PFUnDA)	ng/l	NS	*< 1.6*	*< 1.7*	*< 1.7*	*< 1.7*
Sum of PFOA, PFOS, PFNA, PFHxS, PFHpA	ng/l	**20***	***24.4***	***6.3***	***6.7***	***9.8***

Notes:
< = Compound not detected at concentrations above the laboratory reporting limit. The labora
NS = No Standard
ng/l = nanogram per liter
ft = feet
*Groundwater enforcement standard defined as sum of any combination of PFOA, PFOS,PFH
Qualifiers - Organic:
J = The analyte was positively identified; associated numerical value is the approximate conce
^VT-GW-ENF-STDS not established. USEPA Tapwater regional screening levels, November
VT-GW-ENF-STDS-2019 = Vermont Department of Environmental Conservation Groundwate

Table 5.2
Sub-Slab Soil Gas Summary Table
ENERGIZER Bennington Facility
Bennington, Vermont

Analyte	Unit	VT-IRULE-SSSG-NONRES-2019	VT-IRULE-SSSG-RES-2019	Location ID Sample Date Sample Type SSV-01 08-Jul-20 N	SSV-01 16-Dec-20 N	SSV-02 08-Jul-20 N	SSV-02 08-Jul-20 FD	SSV-02 16-Dec-20 N	SSV-03 08-Jul-20 N	SSV-03 16-Dec-20 N	SSV-04 08-Jul-20 N	SSV-05 16-Dec-20 N	SSV-05 16-Dec-20 FD
Method TO15, µg/m3													
1,1-Dichloroethene	µg/m3	23,000	6,700	*< 0.15*	*< 1.5*	*< 0.46*	*< 0.46*	*< 1.5*	*< 0.15*	*< 1.5*	*< 0.15*	*< 1.5*	*< 1.5*
1,2-Dichloroethene	µg/m3	NS	NS	*< 0.17*	*< 1.7*	*< 0.50*	*< 0.50*	*< 1.7*	*< 0.17*	*< 1.7*	*< 0.17*	*< 1.7*	*< 1.7*
Benzene	µg/m3	35	4.3	**0.49 J**	< 2.1	*< 0.64*	*< 0.64*	< 2.1	**0.50 J**	< 2.1	**0.83**	< 2.1	< 2.1
cis-1,2-Dichloroethene	µg/m3	NS	NS	*< 0.18*	*< 1.8*	*< 0.53*	*< 0.53*	*< 1.8*	*< 0.18*	*< 1.8*	*< 0.18*	*< 1.8*	*< 1.8*
Ethylbenzene	µg/m3	110	13	**0.72 J**	**3.0 J**	**4.3**	**2.0 J**	*< 2.7*	**0.70 J**	*< 2.7*	**0.71 J**	**3.0 J**	*< 2.7*
m,p-Xylenes	µg/m3	NS	NS	**3.0**	*< 4.3*	**18**	**8.0**	*< 4.3*	**3.3**	*< 4.3*	**2.1 J**	*< 4.3*	*< 4.3*
o-Xylene	µg/m3	NS	NS	**1.1**	**2.4 J**	**5.3**	**2.2 J**	*< 2.1*	**2.0**	*< 2.1*	**0.81 J**	*< 2.1*	**2.7 J**
Tetrachloroethene	µg/m3	**170**	**21**	**86**	**26**	**460**	**430**	**160**	**8.0**	< 2.7	**0.48 J**	**15**	**15**
Toluene	µg/m3	NS	NS	**3.5**	*< 4.1*	**2.3**	*< 1.2*	*< 4.1*	**7.8**	*< 4.1*	**16**	*< 4.1*	*< 4.1*
trans-1,2-Dichloroethene	µg/m3	NS	NS	*< 0.17*	*< 1.7*	*< 0.50*	*< 0.50*	*< 1.7*	*< 0.17*	*< 1.7*	*< 0.17*	*< 1.7*	*< 1.7*
Trichloroethene	µg/m3	**23**	**6.7**	**6.2**	*< 1.9*	**41**	**38**	**16**	**48**	*< 1.9*	**0.66 J**	**87**	**80**
Vinyl chloride	µg/m3	62	3.7	*< 0.11*	*< 1.1*	*< 0.34*	*< 0.34*	*< 1.1*	**0.22 J**	*< 1.1*	**0.25 J**	*< 1.1*	*< 1.1*
Xylene, Total	µg/m3	NS	NS	**4.0**	**2.4 J**	**23**	**10**	*< 2.1*	**5.3**	*< 2.1*	**3.0 J**	*< 2.1*	**2.7 J**
Cloroform	µg/m3	12	1.3		*< 1.6*			*< 1.6*		*< 1.6*		*< 1.6*	*< 1.6*

Notes:
< = Compound not detected at concentrationsabove the laboratory detection limit.The laboratory detection limit is shown.
Empty cells = Not analyzed
NS = No Standard
Units are in µg/m3 = micrograms per cubic meter
Qualifiers - Organic:
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value (TABUR)
All analyses performed by TestAmerica - Burlington, VT.
VT-IRULE-SSSG-IND-2019 = Vermont Department of Environmental Conservation, Investigation and Remediation of Contaminated Properties Rule, Vapor Intrusion Screening Values, Sub-slab soil gas Industrial, 2019.
VT-IRULE-SSSG-RES-2019 = Vermont Department of Environmental Conservation, Investigation and Remediation of Contaminated Properties Rule, Vapor Intrusion Screening Values, Sub-slab soil gas Residential, 2019.

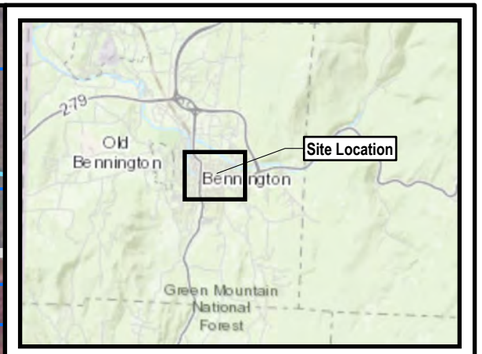
Table 5.3
Indoor Air Summary Table
ENERGIZER Bennington Facility
Bennington, Vermont

Analyte	Unit	VT-IRULE-IAS-NONRES-2019	VT-IRULE-IAS-RES-2019	Location ID / Sample Date / Sample Type / EPA-AA-RSL-RES-2020	OA-01 15-Dec-20 N	IA-01 15-Dec-20 N	IA-02 15-Dec-20 N	IA-02 15-Dec-20 FD	IA-03 15-Dec-20 N	IA-05 15-Dec-20 N
Method TO15, µg/m3										
1,1-Dichloroethene	µg/m3	700.8	200	210	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
1,2-Dichloroethene	µg/m3	NS	NS	42	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzene	µg/m3	**1.05**	**0.13**	**0.36**	***0.41 J***	***0.43 J***	***0.47 J***	***0.39 J***	***0.30 J***	***0.38 J***
cis-1,2-Dichloroethene	µg/m3	NS	NS	42	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Ethylbenzene	µg/m3	**3.27**	**0.4**	**1.1**	***0.28 J***	***0.27 J***	< 0.27	***0.29 J***	***0.78 J***	***0.30 J***
m,p-Xylenes	µg/m3	NS	NS	100	< 0.43	< 0.43	< 0.43	< 0.43	***2.3***	< 0.43
o-Xylene	µg/m3	**NS**	**NS**	**100**	< 0.21	***0.29 J***	***0.24 J***	< 0.21	***1.2***	***0.30 J***
Tetrachloroethene	µg/m3	5.11	0.63	11	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Toluene	µg/m3	**NS**	**NS**	**5200**	< 0.41	< 0.41	***0.49 J***	***0.47 J***	***1***	***0.44 J***
trans-1,2-Dichloroethene	µg/m3	NS	NS	42	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
Trichloroethene	µg/m3	**0.7**	**0.2**	**0.48**	< 0.19	***0.26 J***	***0.40 J***	***0.37 J***	< 0.19	***0.35 J***
Vinyl chloride	µg/m3	1.86	0.11	0.17	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Xylene, Total	µg/m3	**NS**	**NS**	**100**	< 0.21	***0.30 J***	***0.24 J***	< 0.21	***3.4***	***0.30 J***
Cloroform	µg/m3	0.36	0.04	0.12	< 0.16	< 0.16	< 0.16	< 0.16	***0.19 J***	< 0.16

Notes:
< = Compound not detected at concentrations above the laboratory detection limit. The laboratory detection limit is shown.
Empty cells = Not analyzed
NS = No Standard
Units are in µg/m3 = micrograms per cubic meter
Qualifiers - Organic:
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value (TABUR)
All analyses performed by TestAmerica - Burlington, VT.
VT-IRULE-IAS-NONRES-2019 = Vermont Department of Environmental Conservation, Investigation and Remediation of Contaminated Properties Rule, Indoor Air Standard, Non-resident, July 6, 2019.
VT-IRULE-IAS-RES-2019 = Vermont Department of Environmental Conservation, Investigation and Remediation of Contaminated Properties Rule, Indoor Air Standards, Residential, July 6, 2019.
EPA-AA-RES-2020 = USEPA Revional Screening Level Resident Ambient Air Table, November 2020. Lower of carcinogenic SL and noncarcinogenic SL shown. Used when no IRULE-IAS standards available (i.e., toluene, xylenes)

FIGURES

DRAFT



Legend

- Site Building Outline
- Site Property Boundaries
- Property Boundary Lines
- 2,000 Foot Buffer
- Surface Water - Rivers/Streams

Public Water Sources

- Active
- Proposed
- Inactive
- Private Wells
- VT E911 Building Footprints

Zoning

- Central Business
- Office and Apartment
- Public Open Space
- Village Commercial
- Village Industrial
- Village Residential
- Industrial and Profession
- Mixed Residential
- Rural Residential
- Urban Mixed Use
- Industrial
- Hazardous Waste Site
- Hazardous Waste Generators

NOTES:

1. Aerial Imagery: ESRI World Imagery Reproduced under license in ArcGIS 10.7
2. Data collected from Vermont Agency of Natural Resources in 2021

N

0 250 500 1,000

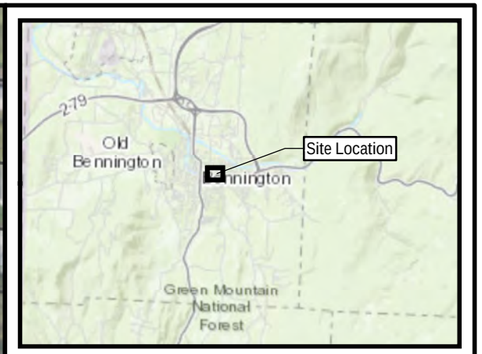
Feet

Figure 1: Vicinity Map
Energizer Holdings, Inc.
Bennington, Vermont

ERM

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Legend

- Monitoring Well
- New monitoring well, installed July 2020
- Decomissioned Monitoring Well
- Waterloo Profiling Boring Location
- Sub-Slab Soil Gas Location/ Indoor Air Sample Location
- Elevation Contours
- Site Property Boundaries
- Tax Parcels
- 50536100 Tax Parcel ID

NOTES:

1. Aerial Imagery: ESRI World Imagery Reproduced under license in ArcGIS 10.7
2. Data collected from Vermont Agency of Natural Resources and USGS

N

0 25 50 100 150 200
Feet

Figure 2: Site Layout Map

Energizer Holding, Inc.
Bennington, Vermont

ERM

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ERM-14
677.55

ERM-16
676.82

ERM-15
678.03

ERM-17
685.78

ERM-12
690.6

ERM-11S
692.61

ERM-10
697.02

ERM-13
691.01

ERM-5S
694.46

ERM-5MA
694.43

ERM-8
697.37

ERM-6
699.01

ERM-2S
707.29

ERM-7
705.74

MW-103
693.55

MW-104
701.03

MW-102
694.11

MW-101
698.14

678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705

N



Legend

- Monitoring Well
- Groundwater Elevation Conotur
- Site Property Boundaries

NOTES:
1. Aerial Imagery: ESRI World Imagery
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N

0 50 100 200 300
Feet

Figure 3a: Groundwater Elevation Contours July 2020
Energizer Holding, Inc.
Bennington, Vermont

ERM

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DRAFT

ERM-14
677.64

ERM-16
676.81

ERM-15
678.03

ERM-17
685.79

ERM-12
690.52

ERM-11S
692.57

ERM-10
697.02

ERM-13
691

ERM-5S
694.41

ERM-5MA
694.43

ERM-8
697.32

ERM-6
699.01

ERM-2S
707.35

ERM-7
705.78

MW-103
693.55

MW-104
701.01

MW-102
694.11

MW-101
698.27

678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705

N



Legend

- Monitoring Well
- Groundwater Elevation Conotur
- Site Property Boundaries

NOTES:
1. Aerial Imagery: ESRI World Imagery
Reproduced under license in ArcGIS 10.7

N

0 50 100 200 300

Feet

Figure 3b: Groundwater Elevation Contours October 2020

Energizer Holding, Inc.
Bennington, Vermont

ERM

Q:\Boston\Teams\DMV\Clients_A_E\Energizer\Bennington\MXD\2021_01\Figure3b_GroundwaterElevationContours_October2020_20210119.mxd - nathan.roberts - 1/19/2021

DRAFT

ERM-16
19

ERM-12
93

MW-103
13-18 (ft)
< 1.0

MW-103
8-13 (ft)
< 1.0

MW-104
5-10 (ft)
< 1.0

MW-104
10-15 (ft)
< 1.0

MW-102
5-10 (ft)
< 1.0

MW-102
10-15 (ft)
< 1.0

MW-101
10-15 (ft)
< 1.0

MW-101
5-10 (ft)
< 1.0



Legend

PCE Concentrations in Groundwater (ug/L)

- Non-Detect
- <5
- 5 - 10
- 10 - 20
- >20
- Site Property Boundaries

NOTES:
1. Aerial Imagery: ESRI World Imagery
   Reproduced under license in ArcGIS 10.7

0 50 100 200 300
Feet

Figure 4a: PCE Concentrations in Groundwater July 2020
Energizer Holding, Inc.
Bennington, Vermont

ERM

Q:\Boston\Team\DMMV\Clients_A_E\Energizer\Bennington\MXD\2021_01\Figure4a_PCEConcentrationsGroundwater_July2020_20210120.mxd - nathan.roberts - 1/20/2021

DRAFT

ERM-16
19

ERM-12
100

ERM-8
< 1.0

MW-103
< 1.0

MW-104
< 1.0

MW-102
< 1.0

MW-101
< 1.0



Legend

PCE Concentrations in Groundwater (ug/L)

- Non-Detect
- <5
- 5 - 10
- 10 - 20
- >20
- Site Property Boundaries

NOTES:
1. Aerial Imagery: ESRI World Imagery
   Reproduced under license in ArcGIS 10.7

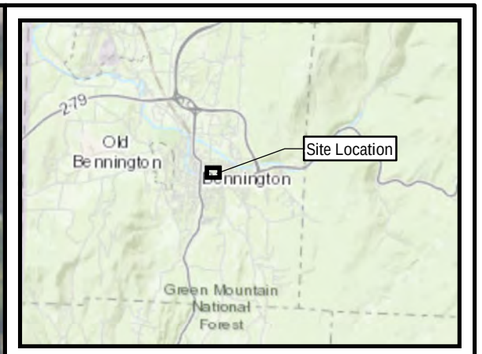
0 50 100 200 300
Feet

Figure 4b: PCE Concentrations in Groundwater October 2020
Energizer Holding, Inc.
Bennington, Vermont

ERM

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Legend

Total PFAS Concentrations in Groundwater (ng/L)



Perfluorooctanoic acid (PFOA)

Perfluorooctane sulfonic acid (PFOS)

Perfluorohexane sulfonic acid (PFHxS)

Perfluorononanoic acid (PFNA)

Perfluoroheptanoic acid (PFHpA)

Site Property Boundaries

MW-103
13-18 (ft)
43.1

MW-103
8-13 (ft)
80.9

MW-102
5-10 (ft)
3.7

MW-102
10-15 (ft)
2.6

MW-101
10-15 (ft)
26.7

MW-101
5-10 (ft)
24.4

MW-104
5-10 (ft)
22.9

MW-104
10-15 (ft)
26

NOTES:
1. Aerial Imagery: ESRI World Imagery
Reproduced under license in ArcGIS 10.7

0 50 100 200 300
Feet

Figure 5a: Total PFAS Concentrations in Groundwater July 2020
Energizer Holding, Inc.
Bennington, Vermont

ERM

Q:\Boston\team\DM\MXD\Clients_A_E\Energizer\Bennington\mXD\2021_01\Figure5a_TotalPFASConcentrationsGroundwater_July2020_20210120.mxd - nathan.roberts - 1/20/2021

DRAFT

ERM-16
9.8

ERM-12
6.3

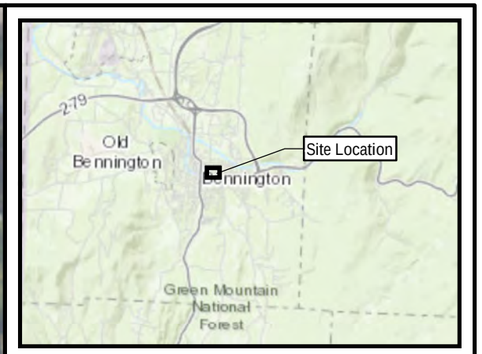
ERM-8
3.4

MW-103
32.6

MW-104
39

MW-102
3.2

MW-101
13.3



Legend

Total PFAS Concentrations in Groundwater (ng/L)

<5 5 - 10 10 - 20 >20

Perfluorooctanoic acid (PFOA)

Perfluorooctane sulfonic acid (PFOS)

Perfluorohexane sulfonic acid (PFHxS)

Perfluorononanoic acid (PFNA)

Perfluoroheptanoic acid (PFHpA)

Site Property Boundaries

NOTES:
1. Aerial Imagery: ESRI World Imagery
Reproduced under license in ArcGIS 10.7

0 50 100 200 300
Feet

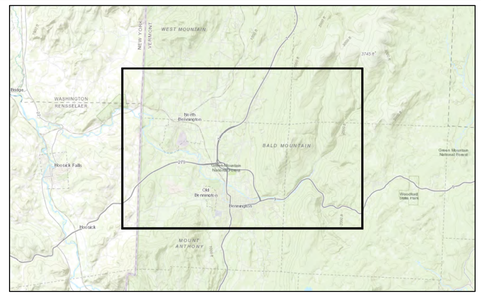
Figure 5b: Total PFAS Concentrations in Groundwater October 2020
Energizer Holding, Inc.
Bennington, Vermont

ERM

Q:\Boston\Team\DM\MXD\Clients_A_E\Energizer\Bennington\MXD\2021_01\Figure5b_TotalPFASConcentrationsGroundwater_October2020_20210120.mxd - nathan.roberts - 1/20/2021

North Bennington/Bennington PFOA

Sampling Test Results (Highest Concentration) - May 30, 2018



Legend

ERM Total PFOA Concentrations in Groundwater (ng/L)

- <6.7
- 6.7 - 20
- 20 - 100
- 100 - 1,000
- >1,000

Energizer Property Boundary

MAP LEGEND

PFOA

- <6.7 ppt (Original Detection Limit)
- 6.7 - 20 ppt (VDH Advisory)
- 20 - 100 ppt
- 100 - 1000 ppt
- >1000 ppt

LAYERS

- Landfill Monitoring
- Factory
- Landfill
- Wastewater Treatment Plant
- Town Water Sample
- WaterLine

BOUNDARIES

- Corrective Action Area 1
- Corrective Action Area 2
- Village Boundary (VCGI)
- Sampling Boundary
- Town Boundary

VT ANR GIS

June 26, 2018

Notes:
Sources: Roads (VTRANS), Basemap (VCGI), Geocoding Service (VCGI), Sampling Results (VTDEC/Weston & Sampson), Waterline (Otter Creek Engineering), Streams and Waterbodies (NHD).

Sampling locations are determined by geocoded addresses as provided. Latitude/Longitude used in instances where sampling locations were recorded.

0 0.25 0.5 1 1.5 2
Miles

N

NOTES:

1. Regional PFOA map from Vermont Agency of Natural Resources
2. ERM Samples shown for Energizer Site are from an October 2020 sampling event

0 0.5 1 2
Miles

N

Figure 6: Regional PFOA Concentrations in Groundwater
Energizer Holdings, Inc.
Bennington, Vermont

ERM

Appendix A SUMMARY OF 2019 SOIL GAS SCREENING SURVEY

From:	Elise LeBlanc
To:	Michael.B.Smith@vermont.gov
Cc:	Boyle, Scott V.; Catherine Regan
Subject:	Energizer Bennington Facility - Summary of 2019 Preliminary Soil Gas Screening Survey Results
Date:	Friday, February 14, 2020 4:43:37 PM
Attachments:	image001.png Summary of 2019 Prelim Soil Gas Screening Survey Results .pdf

Hello Michael,

Thanks again for meeting with us a few weeks ago. We look forward to working with you and your colleagues through the site closure process.

We have attached here the results of our preliminary soil gas screening survey completed in November 2019. We have attached both a data table and sample location figures. The sub-slab soil gas samples were collected as grab soil gas samples using glass syringes, and we analyzed the samples using Blayne Hartman's field gas chromatograph with an Electron Capture Detector configured to analyze for TCE and PCE. Let us know if you have questions about the investigation or the attached results.

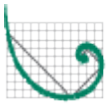
Based on the attached data, results from our historical investigations and our discussions during our meeting with you, we are planning on conducting additional investigation activities. These investigations will be focused around the Plant II building and will include soil and groundwater sampling for VOCs, select metals, and PFAS, as well as additional sub-slab soil gas sampling for VOCs. If you agree, we will start developing a Site Investigation Work Plan for these activities per the VTDEC Investigation and Remediation of Contaminated Properties Rule §35-304. Please let us know if you would like to discuss.

Based on our discussions in January, we also wanted to see if you or Mike Nucci have reviewed the Energizer facility VTDEC files and found any additional reports on the decommissioning of the lead plating area in Plant II.

Thank you,

Ellie

Elise LeBlanc
Senior Project Manager
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Table 1
Summary of 2019 Preliminary Active Soil Gas Screening Survey Results
Energizer Facility
Bennington, VT

Sample ID	Analysis Date	Trichloroethylene ($\mu g/m^3$)	Tetrachloroethylene ($\mu g/m^3$)
SG-01	11/5/2019	1000	1800
SG-02	11/5/2019	3100	8000
SG-03	11/5/2019	ND	ND
SG-04	11/5/2019	1100	161
SG-05	11/5/2019	9600	13400
SG-06	11/5/2019	3400	1200
SG-07	11/5/2019	234	ND
SG-08	11/5/2019	850	210
SG-09	11/5/2019	166	400
SG-10	11/5/2019	ND	500
SG-11	11/5/2019	ND	ND
SG-12	11/5/2019	ND	ND
SG-13	11/5/2019	ND	ND
SG-14	11/5/2019	ND	315
SG-15	11/5/2019	ND	27000*
SG-16	11/5/2019	ND	10000*
SG-17	11/6/2019	ND	8200*
SG-18	11/6/2019	36000*	29000*
SG-19	11/6/2019	ND	1100
SG-20	11/6/2019	ND	720
SG-21	11/6/2019	175	805
SG-22	11/6/2019	620	2000
SG-23	11/6/2019	300	25000
SG-24	11/6/2019	10000	1200

Notes:

* = result based on 10x dilution

ND indicates not detected above reporting limit of 150 $\mu g/m^3$

Figure 1 – 2019 Preliminary Active Soil Gas Screening Survey Results: PCE in Soil Gas (µg/m^3)

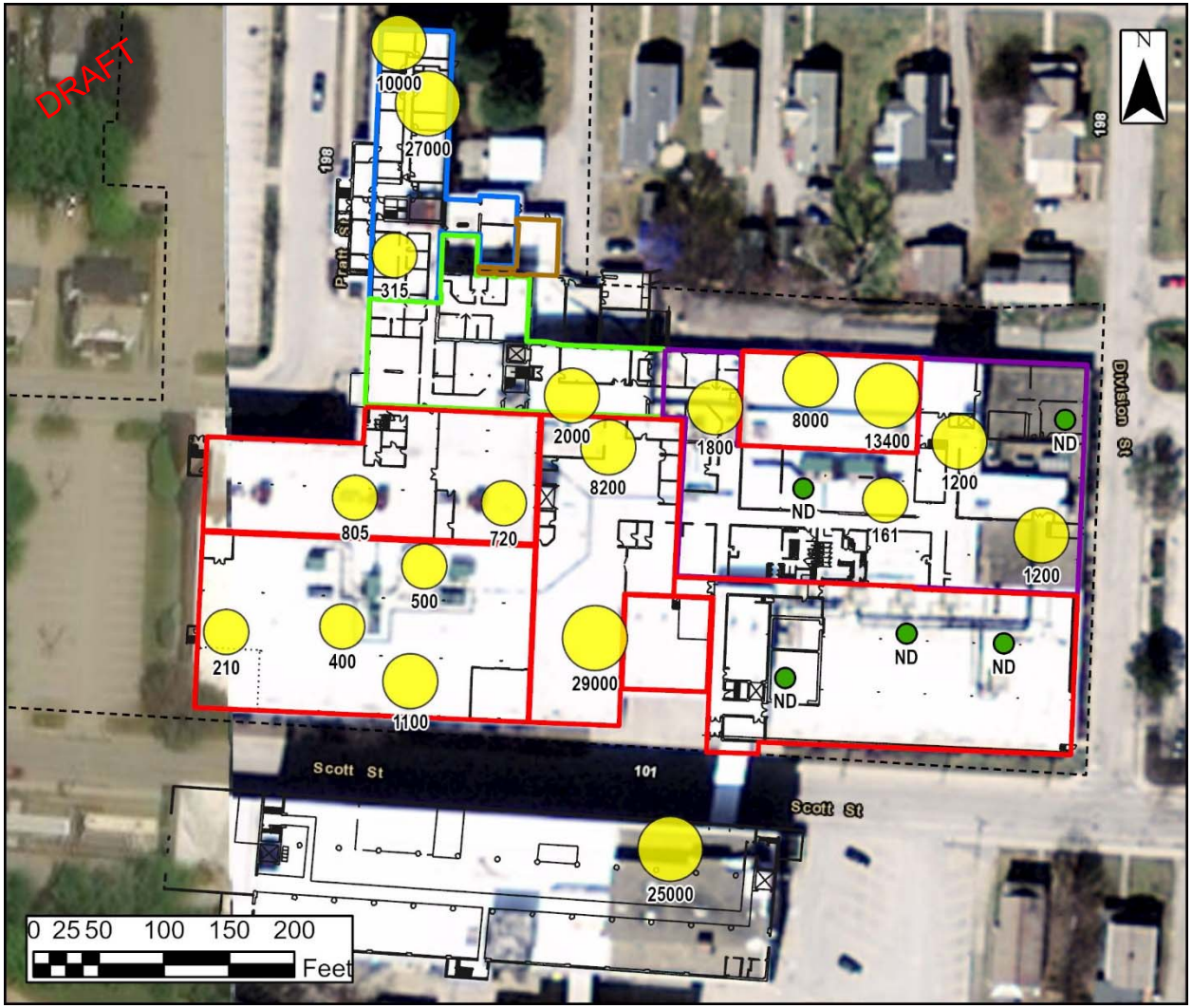
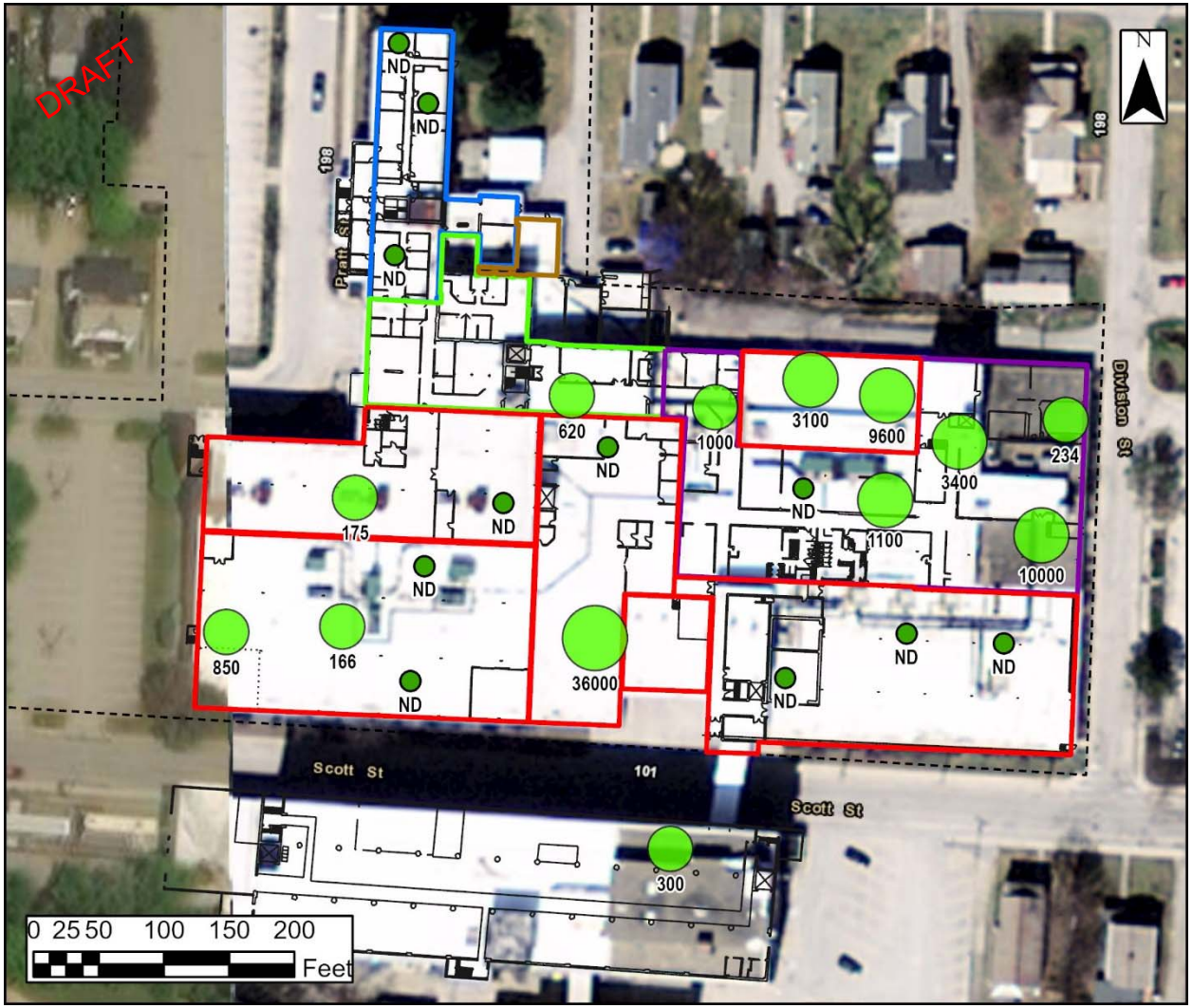


Figure 2 – 2019 Preliminary Active Soil Gas Screening Survey Results: TCE in Soil Gas (µg/m^3)



Appendix B BORING LOGS

ERM
1 Beacon Street; 5th Floor
Boston, Massachusetts 02108
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MW/B-101

Client: Energizer Holdings, Inc.
Project Name: Energizer - Bennington
Project Number: 0529121
Project Location: 401 Gage Street, Bennington, Vermont

DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHOD: Pre-Cleared/Sonic Drilling
DATE BORING COMPLETED: 7/7/2020
DATE WELL INSTALLED: 7/7/2020
GROUND ELEVATION: 704.28 feet amsl
PVC ELEVATION: 703.90 feet amsl

TOTAL DEPTH: 15 feet bgs
DIAMETER: 6 inches
LOGGED BY: K. Popyack
CHECKED BY: H. Usle
NORTHING: 1455120.948
EASTING: 139223.1977

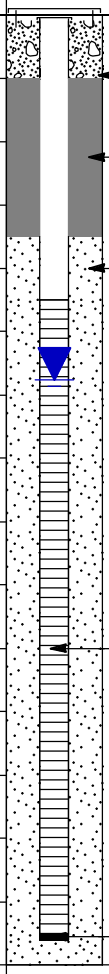
SAMPLE TYPE
Pre Cleared
Sonic Drilling

GRAPHIC LOG LEGEND
Poorly-graded Gravel
Poorly-graded Gravelly Sand
Poorly-graded Sand
Silt

NOTES: Depth to groundwater collected on 7/13/2020. Horizontal survey datum in VT SPCS NAD83; vertical in NAVD88 (survey feet).

DEPTH (feet bgs)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY (inches)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
		PC						0.0
		PC						0.0
		PC	60	100			NO RECOVERY, Soil logging not conducted from 0 to 5 feet bgs. Subsurface material pre-cleared using vacuum excavation.	0.0
		PC						0.0
5	699	PC					5.0	0.0
		SC	48.6	81	GP		Dark Brown, GRAVEL AND COARSE SAND, few subrounded cobbles, poorly sorted, loose, wet.	0.0
								0.0
								0.0
							9.0	0.0
10	694				SP		Light Brown, COARSE TO MEDIUM SAND, and subrounded gravel, cobble at 10 feet bgs, poorly sorted, loose, wet. 10.0	0.0
		SC	48	80	SP		Brown, LITHIC SAND, few subrounded gravel, poorly sorted, wet.	0.0
								0.0
							12.5	0.0
					SP		Brown, MEDIUM TO COARSE SAND, some silt and gravel, poorly sorted, wet.	0.0
							14.5	0.0
15	689				ML		Brown, SILT, few subangular gravel, (0.5" diameter), compact, wet. 15.0	
							Bottom of Boring @ 15.0 feet bgs	
20	684							

WELL DIAGRAM



ACRONYM LEGEND: amsl = above mean sea level; bgs = below ground surface; NAD = North American Datum; NAVD = North American Vertical Datum; NR = no recovery; ppm = parts per million; PID = photoionization detector; PVC = polyvinyl chloride casing; U.S.C.S = Unified Soil Classification System; VT SPCS = Vermont State Plane Coordinate System.

ERM
1 Beacon Street; 5th Floor
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MW/B-102

Client: Energizer Holdings, Inc.
Project Name: Energizer - Bennington
Project Number: 0529121
Project Location: 401 Gage Street, Bennington, Vermont

DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHOD: Pre-Cleared/Sonic Drilling
DATE BORING COMPLETED: 7/7/2020
DATE WELL INSTALLED: 7/7/2020
GROUND ELEVATION: 700.90 feet amsl
PVC ELEVATION: 700.31 feet amsl

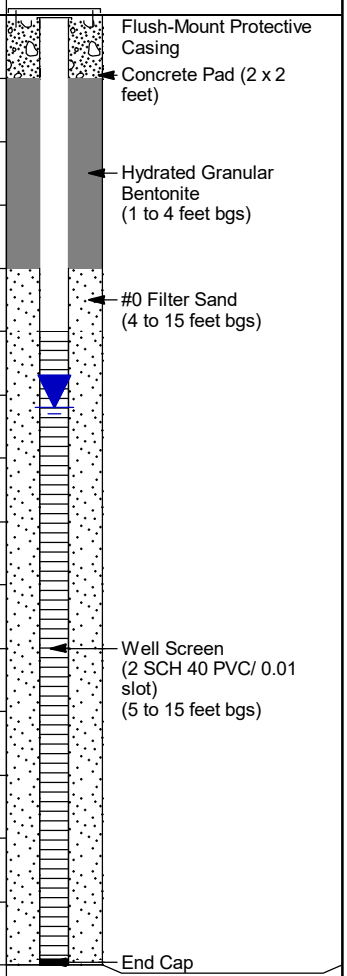
TOTAL DEPTH: 15 feet bgs
DIAMETER: 6 inches
LOGGED BY: K. Popyack
CHECKED BY: H. Usle
NORTHING: 1454982.878
EASTING: 139289.9588

SAMPLE TYPE
Pre Cleared
Sonic Drilling

GRAPHIC LOG LEGEND
Poorly-graded Gravel
Poorly-graded Sand
Poorly-graded Gravelly Sand
Silt

NOTES: Depth to groundwater collected on 7/13/2020. Horizontal survey datum in VT SPCS NAD83; vertical in NAVD88 (survey feet).

DEPTH (feet bgs)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY (inches)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
		PC						
		PC						0.0
		PC	60	100			NO RECOVERY, Soil logging not conducted from 0 to 5 feet bgs. Subsurface material pre-cleared using vacuum excavation.	0.0
		PC						0.0
5	696	PC					5.0	0.0
					GP		Brown, COBBLES, and subangular and subrounded sandy gravel, poorly sorted, loose, moist.	0.0
							7.0	0.0
		SC	36	60	SP		Brown, FINE SAND, few cobbles, poorly sorted, loose, wet.	0.0
							8.0	
					SP		Brown, COARSE SAND AND GRAVEL, few cobbles, poorly sorted, loose, wet.	0.0
10	691						10.0	0.0
					SP		Dark Brown, COARSE SAND, loose, saturated.	0.0
							11.5	0.0
		SC	40	67	SP		Dark Brown, COARSE SAND AND GRAVEL, few cobbles, poorly sorted, loose, wet.	0.0
							13.0	
					SP		Light Brown, COARSE SAND AND GRAVEL, few cobbles, poorly sorted, loose, wet.	0.0
15	686						14.8	0.0
					ML		15.0 Brown, SILT, compact.	
							Bottom of Boring @ 15.0 feet bgs	
20	681							



ACRONYM LEGEND: amsl = above mean sea level; bgs = below ground surface; NAD = North American Datum; NAVD = North American Vertical Datum; NR = no recovery; ppm = parts per million; PID = photoionization detector; PVC = polyvinyl chloride casing; U.S.C.S = Unified Soil Classification System; VT SPCS = Vermont State Plane Coordinate System.

ERM
1 Beacon Street; 5th Floor
Boston, Massachusetts 02108
Telephone: +1 (617) 646-7800

MW/B-103

Client: Energizer Holdings, Inc.
Project Name: Energizer - Bennington
Project Number: 0529121
Project Location: 401 Gage Street, Bennington, Vermont

DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHOD: Pre-Cleared/Sonic Drilling
DATE BORING COMPLETED: 7/7/2020
DATE WELL INSTALLED: 7/7/2020
GROUND ELEVATION: 701.05 feet amsl
PVC ELEVATION: 700.47 feet amsl

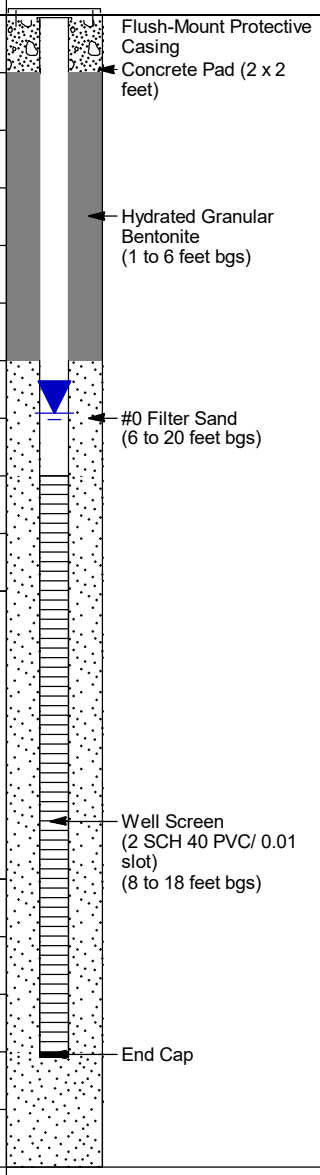
TOTAL DEPTH: 20 feet bgs
DIAMETER: 6 inches
LOGGED BY: K. Popyack
CHECKED BY: H. Usle
NORTHING: 1455001.052
EASTING: 139404.2664

SAMPLE TYPE
Pre Cleared
Sonic Drilling

GRAPHIC LOG LEGEND
Poorly-graded Sandy Gravel
Poorly-graded Sand
Poorly-graded Gravelly Sand
Silt

NOTES: Depth to groundwater collected on 7/13/2020. Horizontal survey datum in VT SPCS NAD83; vertical in NAVD88 (survey feet).

DEPTH (feet bgs)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY (inches)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
		PC						
		PC						0.0
		PC	60	100			NO RECOVERY, Soil logging not conducted from 0 to 5 feet bgs. Subsurface material pre-cleared using vacuum excavation.	0.0
		PC						0.0
5	696	PC					5.0	0.0
					GP		Brown, SANDY GRAVEL, subrounded poorly sorted, loose, wet.	0.0
		SC	60	100			7.0	0.0
					SP		Light Brown, SAND, some subrounded gravel, gray, light brown and white gravels, poorly sorted, dry.	0.0
							9.0	2.1
10	691				SP		FINE SAND, few gravel, cobble at 9.5 feet bgs, loose, dry. 10.0	0.0
		SC	0	0			NO RECOVERY.	NR
15	686						15.0	
					SP		Brown, COARSE SAND AND GRAVEL, few cobbles, minor silt, poorly sorted, loose, wet.	0.0
		SC	60	100				0.0
							18.0	0.0
					ML		Gray, SILT, compact, wet.	0.0
20	681						20.0	0.0
							Bottom of Boring @ 20.0 feet bgs	



ACRONYM LEGEND: amsl = above mean sea level; bgs = below ground surface; NAD = North American Datum; NAVD = North American Vertical Datum; NR = no recovery; ppm = parts per million; PID = photoionization detector; PVC = polyvinyl chloride casing; U.S.C.S = Unified Soil Classification System; VT SPCS = Vermont State Plane Coordinate System.

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1 Beacon Street; 5th Floor
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MW/B-104

Client: Energizer Holdings, Inc.
Project Name: Energizer - Bennington
Project Number: 0529121
Project Location: 401 Gage Street, Bennington, Vermont

DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHOD: Pre-Cleared/Sonic Drilling
DATE BORING COMPLETED: 7/8/2020
DATE WELL INSTALLED: 7/8/2020
GROUND ELEVATION: 705.82 feet amsl
PVC ELEVATION: 705.34 feet amsl

TOTAL DEPTH: 16 feet bgs
DIAMETER: 6 inches
LOGGED BY: K. Popyack
CHECKED BY: H. Usle
NORTHING: 1455309.138
EASTING: 139363.4937

SAMPLE TYPE
Pre Cleared
Sonic Drilling

GRAPHIC LOG LEGEND
Poorly-graded Sandy Gravel
Poorly-graded Gravelly Sand
Silt

NOTES: Depth to groundwater collected on 7/13/2020. Horizontal survey datum in VT SPCS NAD83; vertical in NAVD88 (survey feet).

DEPTH (feet bgs)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY (inches)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
		PC						0.0
		PC						0.0
		PC	60	100			NO RECOVERY, Soil logging not conducted from 0 to 5 feet bgs. Subsurface material pre-cleared using vacuum excavation.	0.0
		PC						0.0
5	701	PC					5.0	0.0
		SC	60	100	GP		SANDY GRAVEL, anthropogenic material from preclearing activities, product visible at 5 feet bgs, "oil-like" material and odor present, poorly sorted, loose, wet.	51.7
								0.0
							8.0	0.0
					GP		Light Brown, SANDY GRAVEL, some cobbles, poorly sorted, loose, wet.	0.0
10	696						10.0	0.0
		SC	72	100	SP		Brown, COARSE SAND AND GRAVEL, few cobbles, poorly sorted, loose, saturated.	0.0
							11.0	0.0
					SP		Brown, COARSE SANDY GRAVEL, some cobbles, poorly sorted, loose, wet to saturated.	0.0
								0.0
							14.5	0.0
15	691				SP		15.0 Brown, SAND AND GRAVEL, few cobbles, lithic sand, poorly sorted, loose, wet.	
					ML		SILT, dense, wet, gray mottling.	0.0
							16.0	
20	686						*Bottom of Boring @ 16.0 feet bgs*	

WELL DIAGRAM
- Flush-Mount Protective Casing
- Concrete Pad (2 x 2 feet)
- Hydrated Granular Bentonite (1 to 3 feet bgs)
- #0 Filter Sand (3 to 15 feet bgs)
- Well Screen (2 SCH 40 PVC/ 0.01 slot) (5 to 15 feet bgs)
- End Cap

ACRONYM LEGEND: amsl = above mean sea level; bgs = below ground surface; NAD = North American Datum; NAVD = North American Vertical Datum; NR = no recovery; ppm = parts per million; PID = photoionization detector; PVC = polyvinyl chloride casing; U.S.C.S = Unified Soil Classification System; VT SPCS = Vermont State Plane Coordinate System.

Appendix C FIELD DOCUMENTATION

Groundwater Gauging Form

Site ID: Energizer, Bennington VT ~~0529121~~

Field Personnel: K. Popyack, O. Botting

Well Designation	Date	Depth to Groundwater (Feet)	Total Depth (Feet)	Well Diameter (Inches)	Comments	PID Background
MW-102	7/13/2020	6.20	15	2"	PID = 29.5	B 15.2
MW-103	7/13/2020	6.92	18	2"	PID = 60.2	B. 40.3
MW-101	7/13/2020	5.76	15	2	PID = 307.9	244.1
MW-104	7/13/2020	4.31	15	2	PID = 251.4	215.5
ERM-5S	7/13/2020	6.35	10	1	PID 146.0	120
ERM-5MA	7/13/2020	6.40	18	1	PID: 146.2	B31.1
ERM-6	7/13/2020	6.75	20	2"	PID = 320.5	277.7
ERM-11S	7/13/2020	10.33	21	1	397.8	299.3
ERM-12	7/13/2020	10.88	20	2	PID 185.3	142.7
~~ERM-16~~						
ERM-25	7/13/2020	6.35		1	352.4	251.6
ERM-8	7/13/2020	7.80		2	PID 251.6	194.8
~~ERM-9S~~						
ERM-14	7/13/2020	12.06		2	PID = 342.5	228.6
ERM-15	7/13/2020	12.78		2	343.2	255.4
ERM-16	7/13/2020	12.66	20	2	PID = 338.0	137
ERM-13	7/13/2020	10.22		2"	PID 186.3	150.0
ERM-10	7/13/2020	7.76		2"	PID = 375.2	249.8
ERM-~~9~~17	7/13/2020	14.39		2	PID 202.4	166.1
ERM-7	7/13/2020	7.33		2	PID 350.3	257

255.4

Groundwater Gauging Form

Site ID: 0529121

Field Personnel: K. Popyack

Well Designation	Date	Depth to Groundwater (Feet)	Total Depth (Feet)	Well Diameter (Inches)	Comments
MW-102	10/26/2020	6.20	13.80	2	0910
MW-101	10/26/2020	5.63	14.36	2	0941 soft bottom
MW-103	10/26/2020	6.92	17.55	2	0923
MW-104	10/26/2020	4.33	13.50	2	0934
ERM-8	10/26/2020	7.85	18.46	2	1007
ERM-12	10/26/2020	10.96	19.20	2	1033
ERM-16	10/26/2020	12.67	19.86	2	1130
ERM-2S	10/26/2020	6.29	12.82	1	0953
ERM-5MA	10/26/2020	6.40	17.88	1	1053
ERM-5S	10/26/2020	6.40	9.56	1	1055
ERM-6	~~10/26/2020~~	~~6.75~~	~~19.82~~	~~2~~	1007 ~~1007~~
ERM-7	10/26/2020	7.29	19.22	2	1000
ERM-10	10/26/2020	7.76		2"	
ERM-11S	10/26/2020	10.37	20.55	1	1025
ERM-13	10/26/2020	10.23	21.26	2	1047
ERM-14	10/26	11.99	19.90	2	1116
ERM-15	10/26/2020	12.78		2"	1110
ERM-17	10/26/2020	14.38	19.31	2	1040
DUP					

Low-Flow Groundwater Sampling Form

ERM

Site Name: Energizer Bennington VT
Project No.: 0529121.04

Monitoring Well: MW-101 (5-10)	Area: 143 Scott St
Date: 7/13/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 20B000228
Weather Conditions: 80°F, clear, sunny slight wind	Turbidity Meter 38757
Time: 1600	

Total Depth (TD)[1]:	Screen Length (feet): 5 (10' total)
Depth to Water (DTW): 5.83	Well Diameter (inches): 2"
Total Volume Purged (USG): 4	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 63.8
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 7	Color: Cloudy Odor: none

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1610	5.86		20.5	718	1.92	7.07	47.1	203.9	200
1615	5.89		19.1	702	3.41	7.21	36.7	207.9	200
1620	5.91		18.4	684	8.01	6.97	24.2	188.7	200
1625	5.91		18.5	686	2.52	7.07	18.6	170.4	200
1630	5.91		18.2	684	3.71	7.07	11.7	161.5	200
1635	5.91		18.5	685	3.03	7.10	11.1	155.4	200
1640	5.90		18.3	685	3.19	7.10	10.87	150.9	200
1645	5.90		18.3	686	3.70	7.11	8.69	143.2	200
1650	5.90		18.1	685	3.43	7.10	5.75	137.9	200
1655	5.90		18.0	685	3.74	7.11	5.01	136.1	200

Sampling Time: 1700

Sample ID: MW-101-5-10-20200713-01

Additional Field Measurements

Analysis Requested:
VOC
Merc.
lead
PFAS

Filtered Y/N: N ↓

Preservative:
HCl
Nitric
↓
NA

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: MW-101 (10-15)	Area: 143 Scott St
Date: 7/13/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	431 Pro Plus 20B000228
Weather Conditions: 80°F, sunny	Turbidity Meter 38757
Time: 1705	

Total Depth (TD)[1]: 14.28	Screen Length (feet): 5' (10' total)
Depth to Water (DTW): 5.88	Well Diameter (inches): 2"
Total Volume Purged (USG): 5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 63.8
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 13	Color: Brown Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1710	5.91		18.1	694	6.04	7.34	79	106.9	200
1715	5.91		18.6	661	3.83	7.18	29.2	114.1	200
1720	5.91		18.7	663	4.02	7.14	11.7	102.5	200
1725	5.91		18.7	665	4.00	7.14	8.96	92.5	200
1730	5.91		18.8	666	2.81	7.14	14.1	86.9	200
1735	5.91		18.7	663	2.60	7.15	16.9	83.3	200
1740	5.90	Flow through cell knocked over, had sediment @ bottom	17.8	674	0.78	7.17	2317	69.0	200
1745	5.90		17.3	676	0.35	7.15	603	67.6	200
1750	5.90		17.3	675	0.32	7.14	14.3	64.8	200
1755	5.90		17.5	673	0.34	7.15	12.4	61.5	200
1800	5.90		17.4	675	0.37	7.14	8.53	58.3	200

Sampling Time: 1805

Sample ID: MW-101-10-15-20200713-01

Additional Field Measurements

Analysis Requested:	Filtered Y/N:	Preservative:
VOC	N	HCl
Merc	↓	Nitric
lead		"
PFAS		NA

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: MW-102 (5-10)	Area: 143 Scott St.
Date: 7/13/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 20B000228
Weather Conditions: 80°F, partly cloudy, slight wind	Turbidity Meter 38757
Time: 1300	

Total Depth (TD)[1]: 15	Screen Length (feet): 5 (10' entire)
Depth to Water (DTW): 6.30	Well Diameter (inches): 2"
Total Volume Purged (USG): 3	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): ~~2026~~ 14.3
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 7'	Color: Murky Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1310	6.32		18.9	599	0.44	7.44	55	-213.2	200
1315	6.30		19.3	581	6.35	7.09	50	-240.4	200
1320	6.32		17.9	576.6	0.32	7.01	19	-246.2	200
1325	6.31		18.1	576.9	0.31	7.03	49.7	-236.4	200
1330	6.32		18.0	575.2	0.35	7.04	26.0	-225.2	200
1335	6.32		17.9	574.9	0.46	7.05	21.1	-214.6	200
1340	6.32		17.5	572.2	0.53	7.05	16.1	-199.9	200
1345	6.32		17.8	569.1	0.62	7.04	14.3	-189.7	200
1350	6.32		17.6	565.1	0.64	7.06	11.2	-181.2	200
1355	6.32		17.7	562.5	0.74	7.06	10.44	-170.8	200
1400	6.33		17.5	561.0	0.80	7.06	7.83	-165.4	200
1405	6.33		17.3	560.4	0.82	7.05	6.58	-165.6	200

Sampling Time: 1410 (5-10)

Sample ID: MW-102-(5-10)20200713-01

Additional Field Measurements

Analysis Requested:	Filtered Y/N:	Preservative:
VOC	N	HCl
lead	↓	Nitric
mercury		"
PFAS		NA

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: MW-102 (10-15)	Area: 143 Scott St
Date: 7/13/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 20B000228
Weather Conditions: 80°F, clear, no wind	Turbidity Meter 38757
Time: 1416	

Total Depth (TD)[1]: 14.17	Screen Length (feet): 10 total
Depth to Water (DTW): 6.29	Well Diameter (inches): 2"
Total Volume Purged (USG): 2.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 28.6 14.3
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 13.5	Color: murky Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1420	6.29		17.1	615	0.34	7.16	1237	-99.5	200
1425	6.34		17.2	590	0.33	7.06	50	-147.6	200
1430	6.34		16.9	582.6	0.32	7.08	31	-146.7	200
1435	6.34		16.8	577.9	0.33	7.06	13	-127.4	200
1440	6.34		16.8	578.8	0.37	7.08	13.98	-125.1	200
1445	6.34		17.1	570.1	0.42	7.08	13.14	-103.4	200
1450	6.34		16.5	568.2	0.41	7.08	8.19	-106.8	200
1455	6.33		16.8	565.2	0.41	7.08	6.35	-97.4	200

Sampling Time: 1500

Sample ID: MW-102(10-15)-20200713-01

Additional Field Measurements

DUP-001-20200713-01

Analysis Requested:
VOC
MERC
lead
PFAS

Filtered Y/N:
N

Preservative:
HCl
Nitric
N
NA

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: MW-103 8-13'	Area: Plant 2
Date: 7/13/20	Sampling Device: Peristaltic pump
Sampling Personnel: O. Bottino	
Weather Conditions: 81°, partly cloudy, wind W 5 mph	
Time: 1305	

Total Depth (TD)[1]: 17.61	Screen Length (feet): 5' (10' total)
Depth to Water (DTW): 6.92	Well Diameter (inches): 2"
Total Volume Purged (USG): 2.5	Casing Type: PVC
Average Purge Rate: 160	PID Headspace (ppm): 19.9
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 10.0'	Color: clear Odor: none

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1325	6.92		18.9	669	2.85	7.74	4.23	115.0	160
1330	6.93		18.5	660	2.34	7.18	3.56	47.9	160
1335	6.93		18.6	653	2.16	7.07	2.68	48.4	160
1340	6.93		18.5	638	2.04	7.04	3.89	44.4	160
1345	6.93		18.5	627	2.06	7.02	3.00	47.3	160
1350	6.93		18.5	625	2.06	7.01	3.65	45.0	160
1355	6.93		18.4	621	2.14	7.02	3.28	29.7	160
1400	6.93		18.4	618	1.99	7.03	3.50	44.6	160
1405	6.93		18.5	610	2.23	7.02	3.63	29.4	160
1410	6.93		18.4	612	2.18	7.02	3.81	33.2	160
1415	6.93		18.4	616	2.14	7.03	3.97	26.2	160

7/13/2020

Sampling Time: 1420

Sample ID: MW-103-8-13-20200713-01

Additional Field Measurements

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	None
8260C-TCL VOCs	N	HCl
6010C, 7470A	N	Nitric Acid

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

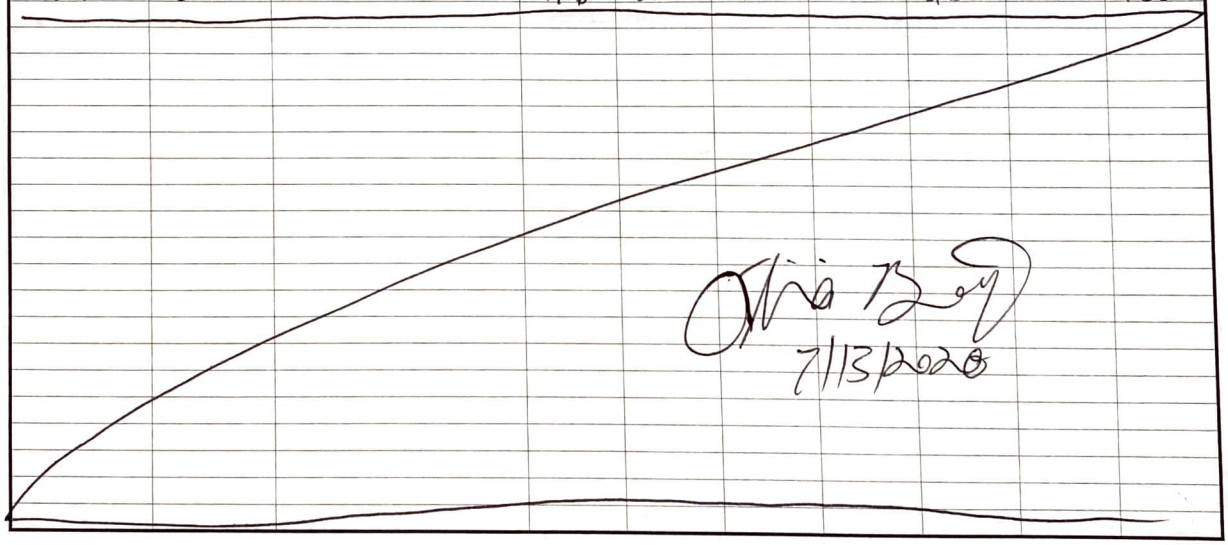
ERM

Site Name: Energizer Bennington VT
Project No.: 0529121.04

Monitoring Well:	MW-103 13-18'	Area:	plant 2
Date:	7/13/2020	Sampling Device:	Peristaltic Pump
Sampling Personnel:	O. Bolling		
Weather Conditions:	82°, Sunny, wind W 7 mph		
Time:	1430		

Total Depth (TD)[1]:	17.61	Screen Length (feet):	5' (10' total)
Depth to Water (DTW):	6.93	Well Diameter (inches):	2"
Total Volume Purged (USG):	1.0	Casing Type:	PVC
Average Purge Rate:	160	PID Headspace (ppm):	19.9
Tubing Type:	HDPE	Measuring Point:	TOC
Pump Intake (feet below MP):	16.5	Color:	clear Odor: none

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (uS/cm³)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
1439	6.93		18.0	493.2	5.31	7.21	3.25	36.4	160
1444	6.94		17.8	492.4	3.07	7.08	2.19	30.4	160
1449	6.94		18.1	498.6	2.88	7.05	2.76	34.9	160
1454	6.93		18.0	505.9	2.68	7.02	3.40	37.6	160
1459	6.93		17.7	507.3	2.83	7.02	2.72	39.5	160
1504	6.93		17.8	509.3	2.78	7.02	2.99	41.9	160
1509	6.93		17.6	508.0	2.74	7.01	2.38	44.4	160



Sampling Time: 1515

Sample ID: MW-103-13-18-20200713-01

Additional Field Measurements

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	None
8260C-TCL VOCs	N	HCl
6010C, 7470A	N	Nitric Acid

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: MW-104 5-10'	Area:
Date: 7/13/20	Sampling Device: Peristaltic pump
Sampling Personnel: O. Botting	
Weather Conditions: 84°, sunny, wind WSW 8 mph	
Time: 1605	

Total Depth (TD)[1]:	Screen Length (feet): 5' (10' total)
Depth to Water (DTW): 4.29	Well Diameter (inches): 2"
Total Volume Purged (USG): 2.0	Casing Type: PVC
Average Purge Rate: 160	PID Headspace (ppm): 35.9
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 7.0'	Color: Clear Odor: none

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1615	4.29		18.8	410.5	6.48	7.23	2.23	130.5	160
1620	4.30		18.2	401.7	4.55	6.94	0.65	132.4	160
1625	4.30		18.2	401.3	4.52	6.88	3.49	135.7	160
1630	4.30		17.5	398.6	4.64	6.83	1.82	139.5	160
1635	4.30		17.3	397.6	4.65	6.83	1.78	142.1	160
1640	4.31		17.6	398.5	4.50	6.81	2.66	144.3	160
1645	4.31		18.0	399.1	4.48	6.81	2.46	146.0	160

Otha Boy
7/13/2020

Sampling Time: 1650

Sample ID: MW-104-5-10-20200713-01

Additional Field Measurements

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	None
8260C-TCL VOCs	N	HCl
6010C, 7470A	N	Nitric Acid

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: MW-104 10-15'	Area:
Date: 7/13/20	Sampling Device: Peristaltic pump
Sampling Personnel: A. Bolling	
Weather Conditions: 82°, partly sunny, wind WNW 7 mph	
Time: 1703	

Total Depth (TD)[1]: 14.52	Screen Length (feet):
Depth to Water (DTW): 4.31	Well Diameter (inches): 2"
Total Volume Purged (USG): 2.0	Casing Type: PVC
Average Purge Rate: 160	PID Headspace (ppm): 35.9
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP):	Color: Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1706	4.31		16.9	401.8	6.13	6.95	4.56	155.0	200
1711	4.31		16.7	397.1	4.70	6.86	1.55	146.0	160
1716	4.31		16.5	397.0	4.48	6.84	2.19	142.5	160
1721	4.31		16.6	396.8	4.49	6.82	1.18	141.8	160
1726	4.31		16.4	397.0	4.45	6.81	1.37	142.7	160
1731	4.31		16.4	396.9	4.49	6.81	1.91	143.7	160
1736	4.31		16.3	396.7	4.73	6.81	1.41	144.6	160

7/13/2020

Sampling Time: 1740

Sample ID: MW-104-10-15-20200713-01

Additional Field Measurements

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	None
8260C-TCL VOCs	N	HCl
6010C, 7470A	N	Nitric Acid

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

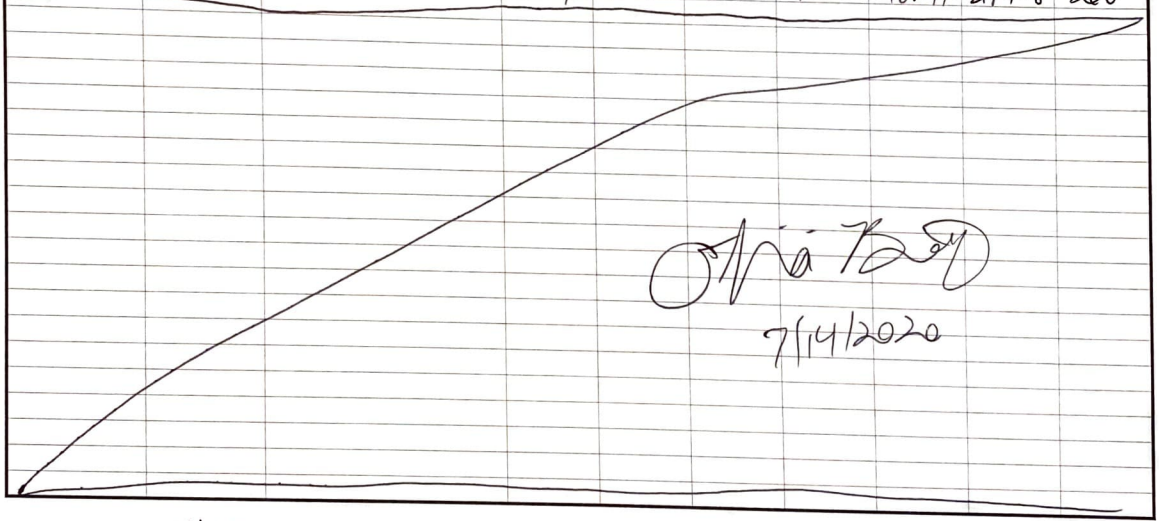
Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: ERM-5Ma	Area: 401 Gage Street.
Date: 7/14/2020	Sampling Device: peristaltic Pump
Sampling Personnel: O. Botting	
Weather Conditions: 73°, sun & clouds, wind WSW 6 mph	
Time: 1347	

Total Depth (TD)[1]: 17.90	Screen Length (feet): 5'
Depth to Water (DTW): 6.37	Well Diameter (inches): 1"
Total Volume Purged (USG): 1.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 15.1
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 16.0	Color: clear Odor: none

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1350	6.39		18.1	414.0	7.28	7.46	88.0	233.8	300
1355	6.39		18.0	405.3	6.08	7.10	28.8	229.8	200
1400	6.39		18.0	401.0	6.17	7.06	14.5	227.2	200
1405	6.39		17.9	398.5	2.29	7.03	10.32	224.7	200
1410	6.39		17.9	396.1	5.78	7.01	10.97	221.1	200
1415	6.39		18.0	396.3	5.74	7.02	12.0	226.8	200
1420	6.39		17.9	396.6	5.87	7.03	10.41	214.8	200



7/14/2020

Sampling Time: 1425

Sample ID: ERM-5Ma-20200714-01

Analysis Requested: 6010C, 7470A

Filtered Y/N: N

Preservative: Nitric Acid

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: ERM-5S	Area: 401 Gage Street
Date: 7/14/2020	Sampling Device: Peristaltic pump
Sampling Personnel: O. Botting	
Weather Conditions: 73°, overcast, wind NW 5 mph	
Time: 1044	

Total Depth (TD)[1]: 9.55	Screen Length (feet): 7'
Depth to Water (DTW): 6.35	Well Diameter (inches): 1"
Total Volume Purged (USG): 1.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 26.0
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 8.5	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1050	6.37		18.6	357.9	6.66	7.36	19.4	217.4	200
1055	6.39		18.1	350.1	5.79	7.23	5.05	223.3	200
1100	6.39		18.1	364.0	5.84	7.21	0.95	225.0	200
1105	6.39		18.1	368.7	6.18	7.21	0.89	224.7	200
1110	6.39		18.1	369.6	6.50	7.20	0.54	224.6	200
1115	6.39		18.1	367.7	6.66	7.20	0.77	225.9	200
1120	6.40	Rain	18.1	367.3	7.00	7.20	1.20	228.8	200

Sampling Time: 1125

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
ERM-5S-20200714-01	6010C, 7470A	N	HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

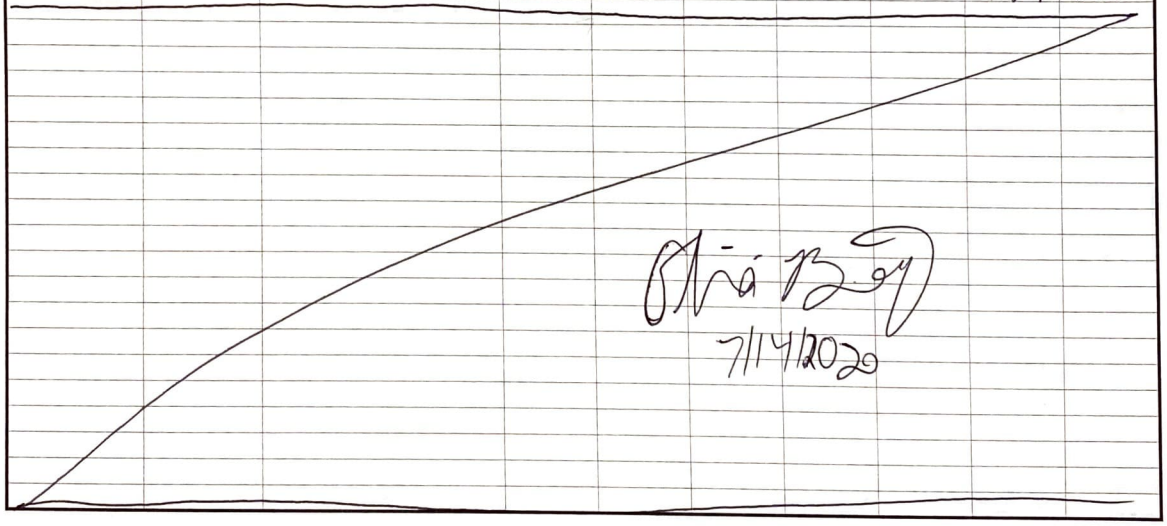
Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: ~~MW~~ (OB) ERM-6	Area: 140 Scott Street
Date: 7/14/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: O. Botting	
Weather Conditions: 72°, mostly cloudy, wind WNW 2mph	
Time: 0918	

Total Depth (TD)[1]: 14.74	Screen Length (feet): 5'
Depth to Water (DTW): 6.72	Well Diameter (inches): 2"
Total Volume Purged (USG): 1.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 42.8
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 13.50	Color: clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0924	6.77		15.0	248.5	5.84	7.29	11.64	212.7	200
0929	6.77		14.8	237.0	4.51	6.67	2.85	229.1	200
0934	6.77		14.7	235.9	4.52	6.77	1.79	223.5	200
0939	6.77		14.8	235.2	4.19	6.86	0.84	220.1	200
0944	6.77		14.6	235.9	4.31	6.91	0.46	220.3	200
0949	6.78		14.6	234.8	4.30	6.92	0.40	221.3	200
0954	6.77		14.8	235.4	4.18	6.95	0.20	218.7	200



7/14/2020

Sampling Time: 1000

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
ERM-6-20200714-01	6010C, 7470A	N	Nitric Acid

Additional Field Measurements

DUP-002-20200714-01

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

EAM-8

Monitoring Well: ~~MW~~-8	Area: 140 Scott St
Date: 7/14/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 17A102908
Weather Conditions: 71°F, cloudy, calm	Turbidity Meter 38757
Time: 0915	

Total Depth (TD)[1]: 18.54	Screen Length (feet): 5'
Depth to Water (DTW): 7.87	Well Diameter (inches): 2"
Total Volume Purged (USG): 2.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 56.8
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 17.5	Color: Cloudy Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0925	7.87		14.6	310.9	8.47	7.44	828	226.4	300
0930	7.88		14.8	296.1	8.43	7.25	44.7	221.8	200
0935	7.87		14.6	292.6	8.30	7.26	13.1	208.7	200
0940	7.87		14.5	292.9	8.14	7.29	10.65	202.5	200
0945	7.87	raining	14.6	290.2	8.08	7.30	7.94	197.8	200
0950	7.87		14.5	289.9	8.14	7.32	5.88	194.2	200
0955	7.87		14.5	288.3	8.13	7.33	4.63	192.3	200

Sampling Time: 1000

Sample ID: MW-8-20200714-01

Analysis Requested: lead, merc

Filtered Y/N: N ↓

Preservative: Nitric ↓

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: ERM-115	Area: 401 Gage St
Date: 7/14/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 17A102908
Weather Conditions: 75°F, cloudy, slight wind	Turbidity Meter 38757
Time: 1030	

Total Depth (TD)[1]: 20.58	Screen Length (feet): 5'
Depth to Water (DTW): 10.36	Well Diameter (inches): 1"
Total Volume Purged (USG): 1.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 98.5
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 19.5	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1050	10.35		14.3	209.1	5.59	7.30	2.40	217.8	200
1055	10.35		14.2	208.2	5.29	7.17	1.92	215.2	200
1100	10.36		14.4	208.0	4.81	7.12	1.15	213.5	200
1105	10.35		14.2	208.3	4.72	7.09	1.01	211.2	200
1110	10.35		14.3	207.7	4.87	7.08	1.68	208.8	200
1115	10.35		14.2	207.9	5.18	7.08	0.95	207.1	200
1120	10.35		14.2	208.2	4.79	7.08	0.73	205.0	200

Sampling Time: 11:25

Sample ID: ERM-115-20200714-01

Analysis Requested: lead, merc

Filtered Y/N: N

Preservative: Nitric Acid

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: ERM-12	Area: 401 Gage St
Date: 7/14/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus
Weather Conditions:	Turbidity Meter
Time: 1430	

Total Depth (TD)[1]: 19.29	Screen Length (feet): 5
Depth to Water (DTW): 10.94	Well Diameter (inches): 2
Total Volume Purged (USG): 2	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 37.6
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 18.0	Color: Clear, very slight steen Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1440	10.96		16.3	281.9	7.75	7.21	1.31	193.5	200
1445	10.96		15.6	277.0	7.09	7.05	4.14	204.1	200
1450	10.97		15.5	276.4	6.98	7.03	4.99	208.7	200
1455	10.96		15.3	276.1	7.30	7.02	5.66	212.7	200
1500	10.96	Raining	15.7	276.7	7.59	7.02	3.91	222.2	200
1505	10.96		15.6	277.9	7.54	7.02	3.47	227.7	200
1510	10.96		15.4	278.3	6.55	7.01	4.33	229.3	200
1515	10.96		15.2	278.8	6.56	7.01	2.36	233.9	200
1520	10.96		15.3	277.0	6.47	7.02	2.18	235.1	

Sampling Time: 1525

Sample ID: ERM-12-20200714-01

Analysis Requested: VOC

Filtered Y/N: N

Preservative: HCl

Additional Field Measurements

DUP-001-20200714-01

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer Bennington VT
Project No.: 0529121.04

ERM

Monitoring Well: ERM-16	Area: Park St
Date: 7/14/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	
Weather Conditions: 70°F, cloudy	
Time: 1600	

Total Depth (TD)[1]: 20.00	Screen Length (feet): 5'
Depth to Water (DTW): 12.70	Well Diameter (inches): 2"
Total Volume Purged (USG): 3	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm):
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP):	Color: gray Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1620	12.72		16.3	525.0	10.31	7.57	G13AU	38.1	250
1625	12.72		16.3	450.3	8.62	7.07	22.9	72.6	200
1630	12.72		16.8	430.6	8.83	6.96	19.2	91.1	200
1635	12.72		16.3	428.7	8.84	6.92	10.68	98.6	200
1640	12.72		15.8	429.8	9.44	6.92	7.59	116.1	300
1645	12.72		16.1	424.9	8.88	6.91	3.97	127.0	250
1650	12.72		16.5	426.5	8.58	6.92	3.40	134.6	200
1655	12.72		16.5	427.1	8.38	6.92	3.65	139.2	200
1700	12.72		15.9	428.8	8.98	6.93	3.03	174.3	200
1705	12.72		16.0	428.1	8.57	6.92	3.33	178.3	200
1710	12.72		16.0	427.3	8.59	6.92	3.33	180.7	200

Sampling Time: 1715

Sample ID: ERM-16-20200714-01 | Analysis Requested: VOC | Filtered Y/N: N | Preservative: HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Energizer, Bennington VT
Project No.: 0529121

Monitoring Well: MW-101	Area: Plant II loading dock
Date: 10/27/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 19F102415
Weather Conditions: ± 45°F, ~~cloudy~~ overcast, wind NW@3 mph	Turbidity meter
Time: 0855	

Total Depth (TD)[1]: 14.36	Screen Length (feet): 10'
Depth to Water (DTW): 5.59	Well Diameter (inches): 2"
Total Volume Purged (USG): 2 gal	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 0.0
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 13.5	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0900	5.63		16.4	444.1	3.37	7.05	46	7.5	200
0905	5.63		16.6	441.0	2.10	7.17	37	-22.3	200
0910	5.64		16.6	441.0	2.04	7.04	45	-20.9	200
0915	5.64		16.5	449.7	1.78	7.00	7.17	-24.2	200
0920	5.65		16.7	460.8	1.47	6.94	7.09	-33.7	200
0925	5.65		16.7	466.2	1.35	6.93	6.81	-37.9	200
0930	5.65		16.7	472.3	1.23	6.92	6.80	-41.9	200
0935	5.65		16.7	470.8	1.27	6.91		-38.9	200
~~0940~~									

K. Popyack 10/27/2020

Sampling Time: 0940

Sample ID: MW-101-20201027-01

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	None
VOCs	↓	HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Energizer, Bennington VT
Project No.: 0529121

Monitoring Well: MW-102	Area: Plant 2 near loading dock
Date: 10/27/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 15F102415
Weather Conditions: 44°F, slightly cloudy, wind NW@ 5 mph	Turbidity meter
Time: 0745	

Total Depth (TD)[1]: 13.80	Screen Length (feet): 10'
Depth to Water (DTW): 6.14	Well Diameter (inches): 2"
Total Volume Purged (USG): 2	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 0.0
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 12.5	Color: Orange-brown Odor: None

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (uS/cm³)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
0750	6.18		14.3	524.0	1.61	7.15	1222AU	-36.0	200
0755	6.18		14.3	539.0	0.98	7.59	115	-84.2	200
0800	6.18		14.4	533.2	0.95	7.53	36	-88.3	200
0805	6.19		14.4	517.7	0.90	7.49	12	-85.5	200
0810	6.19		14.4	510.0	0.87	7.41	7.22	-81.8	200
0815	6.19		14.5	503.4	0.87	7.35	5.98	-78.7	200
0820	6.19		14.4	495.7	0.87	7.35	5.62	-79.9	200

K. Popyack 10/27/2020

Sampling Time: 0825

Sample ID: MW-102-20201027-01

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	NA
VOCs	↓	HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Energizer, Bennington VT
Project No.: 0529121

Monitoring Well: MW-103	Area: West Parking lot
Date: 10/26/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 15F102415
Weather Conditions:	Turbidity Meter
Time: 1610	

Total Depth (TD)[1]: 17.55	Screen Length (feet): 10'
Depth to Water (DTW): 6.92	Well Diameter (inches): 2"
Total Volume Purged (USG): 2	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 0.0
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 16.5	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1615	6.94		16.6	392.6	2.37	6.86	3.05	-1.9	200
1620	6.94		16.7	403.5	2.34	7.00	3.01	-25.4	200
1625	6.94		16.7	405.1	2.26	7.03	2.91	-26.8	200
1630	6.95		16.7	407.3	2.20	7.00	2.76	-28.6	200
1635	6.95		16.7	407.3	2.23	6.99	2.94	-26.9	200
1640	6.97		16.8	409.3	2.18	7.00	2.33	-20.8	200
1645	6.97		16.8	410.2	2.23	7.00	2.35	-16.9	200

10/26/2020

Sampling Time: 1650

Sample ID: MW-103-20201026-01

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	NA
VOCs	↓	HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Energizer, Bennington VT
Project No.: 0529121

Monitoring Well: MW-104	Area: Loading dock
Date: 10/26/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI pro Plus 15F102415
Weather Conditions: 50°F, overcast, wind E@10mph	Turbidity Meter
Time: 1515	

Total Depth (TD)[1]: 13.50	Screen Length (feet): 10'
Depth to Water (DTW): 4.33	Well Diameter (inches): 2"
Total Volume Purged (USG): 2	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 0.0
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 12.5'	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1520	4.33		14.4	338.2	5.63	6.86	1.89	38.3	200
1525	4.34		14.6	339.9	5.20	6.78	2.58	26.6	200
1530	4.34		14.6	338.5	5.13	6.77	2.08	24.5	200
1535	4.35		14.6	339.8	5.17	6.78	1.99	21.3	200
1540	4.35		14.6	338.0	5.12	6.80	1.98	18.8	200
1545	4.36		14.6	338.0	5.14	6.81	2.53	17.8	200
1550	4.36		14.6	338.3	5.13	6.76	2.40	20.4	200

10/26/2020

Sampling Time: 1555

Sample ID: MW-104-20201026-01

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	NA
VOCs	↓	HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

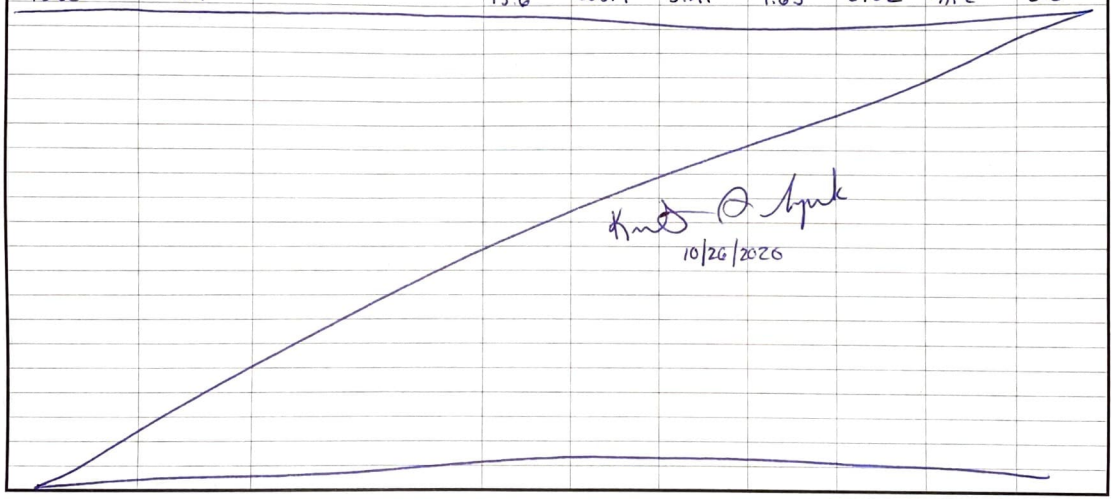
Site Name: Energizer, Bennington VT
Project No.: 0529121

ERM

Monitoring Well: ERM-8	Area:
Date: 10/26/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 15F102415
Weather Conditions: 47°F, rain, wind ESE @ 9 mph	Turbidity meter
Time: 1250	

Total Depth (TD)[1]: 18.46	Screen Length (feet): 5'
Depth to Water (DTW): 7.85	Well Diameter (inches): 2
Total Volume Purged (USG): 2.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 0.0
Tubing Type: HDPE	Measuring Point: ~~TOC~~
Pump Intake (feet below MP): 17.5	Color: slight green, clear Odor: none

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1300	7.85		13.4	288.7	7.49 6.02	7.30	29.2	15.2	200
1305	7.85		13.3	302.3	~~7.46~~	7.40	20.7	2.7	200
1310	7.86		13.4	303.6	5.62	7.45	11.4	-1.2	200
1315	7.86		13.5	304.6	5.47	7.55	9.82	-12.2	200
1320	7.86		13.5	306.2	5.37	7.57	8.61	-9.5	200
1325	7.86		13.6	306.9	5.37	7.64	5.10	-9.0	200
1330	7.86		13.6	303.9	5.41	7.65	5.02	-11.2	200



Sampling Time: 1330

Sample ID: ERM-8-20201026-01

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	NA
VOCs	↓	HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Energizer, Bennington VT
Project No.: 0529121

ERM

Monitoring Well: ERM-12	Area: Main Entrance
Date: 10/26/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 15F102415
Weather Conditions:	Turbidity Meter
Time: 1350	

Total Depth (TD)[1]: 19.2	Screen Length (feet): 5'
Depth to Water (DTW): 10.96	Well Diameter (inches): 2"
Total Volume Purged (USG): 2	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 0.0
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP):	Color: clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1405	10.97		15.5	329.4	6.71	7.22	7.66	21.0	300
1410	10.97		15.5	372.6	6.71	7.28	3.30	6.5	200
1415	10.97		15.5	380.1	6.67	7.19	4.28	10.1	200
1420	10.97		15.5	381.7	6.43	7.14	3.29	8.9	200
1425	10.97		15.5	381.9	6.15	7.12	3.5	10.6	200
1430	10.98		15.5	383.5	5.87	7.03	1.19	14.8	200
1435	10.98		15.5	386.5	5.80	7.08	2.6	12.0	200

K. Popyack 10/26/2020

Sampling Time: 1435

Sample ID: ERM-12-20201026-01

Analysis Requested:	Filtered Y/N:	Preservative:
PFAS	N	NA
VOCs	↓	HCl

Additional Field Measurements

DUP-20201026-01 @ 1200

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

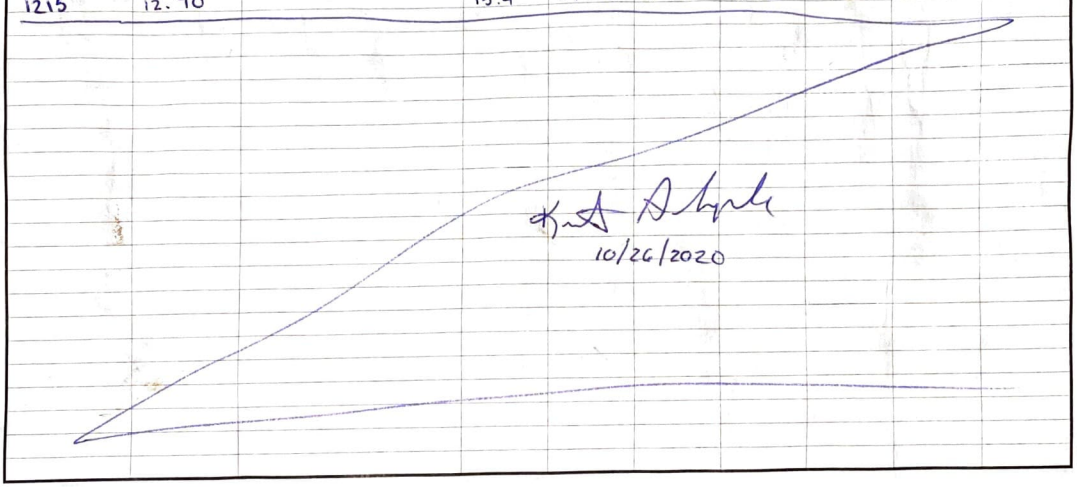
ERM

Site Name: Energizer, Bennington VT
Project No.: 0529121

Monitoring Well: ERM-16	Area: Park St
Date: 10/26/2020	Sampling Device: Peristaltic Pump
Sampling Personnel: K. Popyack	YSI Pro Plus 15F102415
Weather Conditions: 50°F, Rain	Turbidity meter
Time: 1130	

Total Depth (TD)[1]: ~~12.67~~ 19.86	Screen Length (feet): 5'
Depth to Water (DTW): 12.67	Well Diameter (inches): 2"
Total Volume Purged (USG): 1.5	Casing Type: PVC
Average Purge Rate: 200	PID Headspace (ppm): 0.0
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): 18.5	Color: Black, slight sheen Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1145	12.68		15.4	573.1	2.91	7.08	6.5	-34.4	200
1150	12.70		15.4	476.9	4.15	7.08	38.6	12.9	200
1155	12.70		15.5	446.0	4.79	6.92	19.8	21.9	200
1200	12.70		15.3	412.0	5.42	6.83	13.2	25.0	200
1205	12.70		15.3	402.4	5.52	6.82	6.84	27.3	200
1210	12.70		15.3	399.8	5.79	6.81	4.62	30.5	200
1215	12.70		15.4	399.2	5.72	6.72	3.90	30.3	200



10/26/2020

Sampling Time: 1220

Sample ID: ERM-16 ~~[illegible]~~ -01 -20201026

Analysis Requested: PFAS 537.1; VOCs 8260c

Filtered Y/N: N

Preservative: ~~HCl~~ NA; HCl

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Environmental Resources Management

Project #:	0529121
Project Name:	Energizer - Bennington
Location:	Bennington, VT
Project Manager:	Elise LeBlanc

Sample Location:	SSV-01	**Collector Name(s):**	Caldwell Payne
Address:	143 Scott St., Bennington, VT		
PID Meter Used: (Model, Serial #)	10.6 eV MiniRae SN: 592-927765	**Date:**	7/8/2020

Sample ID: **SSV-01-20200708-01**

Duplicate Sample? (Y/N): N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	2851	Flow Controller ID Number:	5889
Start Date/Time:	7/8/2020 11:57	Stop Date/Time:	7/8/2020 12:23
Start Pressure: (inches Hg) [1]	-27	Stop Pressure: (inches Hg) [2]	-3

Other Sampling Information:

Story/Level	1	Ground Surface (pavement, flooring)	Epoxied cement slab	Depth of Vapor Probe (bgs)	~2" bgs recessed
Room (if applicable)	Western floor of Building #2	Slab thickness (if applicable)	7"	Distance from Building (if	
Indoor Air Temp (ºF)	81 ºF	Potential Vapor Pathways Observed?	Crck in slab, partial fill with epoxy	Distance to nearest Roadway (ft.)	50'
Intake Height Above Ground Level (ft.)	1.5	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	29.96"

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:	11:40	C02	Methane	
	Time Stop:	11:41	O2	VOCs	0
	Volume Purged:	~25 ml			

Initial Sample Purge Vol (soil gas only):	60 ml	PID Reading (ppm):	
Water Dam Completed and Passed?	Passed Time:	12 minutes Comments:	

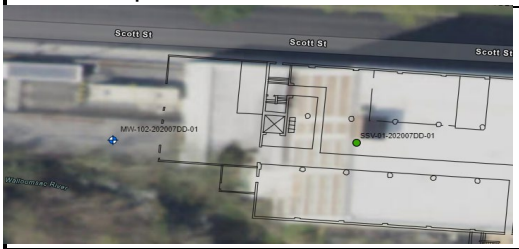
Shut-In Test Completed and Passed?	Passed	Vac held ("Hg): -13	Time held (mi 10

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:



Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #:	0529121
Project Name:	Energizer - Bennington
Location:	Bennington, VT
Project Manager:	Elise LeBlanc

Sample Location:	SSV-02	**Collector Name(s):**	Caldwell Payne
Address:	143 Scott St., Bennington, VT		
PID Meter Used: (Model, Serial #)	10.6 eV MiniRae SN: 592-927765	**Date:**	7/8/2020

Sample ID: **SSV-02-20200708-01**

Duplicate Sample? (Y/N): Y **Duplicate Sample ID:** DUP-20200708-01

Type of sample (circle one): INDOOR AIR AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	5703 / 5464	Flow Controller ID Number:	5992 / 5884
Start Date/Time:	7/8/2020 11:32	Stop Date/Time:	7/8/2020 12:11
Start Pressure: (inches Hg) [1]	-28 / -29	Stop Pressure: (inches Hg) [2]	-4 / -5

Other Sampling Information:

Story/Level	1	Ground Surface (pavement, flooring)	Epoxied cement slab	Depth of Vapor Probe (bgs)	~2" bgs recessed
Room (if applicable)	Central floor of Building #2	Slab thickness (if applicable)	8"	Distance from Building (if	
Indoor Air Temp (ºF)	81 ºF	Potential Vapor Pathways Observed?	Crack in slab, partial fill with epoxy	Distance to nearest Roadway (ft.)	70'
Intake Height Above Ground Level (ft.)	1.5	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	29.96"

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:	11:26	C02		Methane	
	Time Stop:	11:27	O2		VOCs	0
	Volume Purged:	~25 ml				

Initial Sample Purge Vol (soil gas only):	100 ml	PID Reading (ppm):	

Water Dam Completed and Passed?	Passed	Time:	12 minutes	Comments:	

Shut-In Test Completed and Passed?	Passed	Vac held ("Hg): -15	Time held (mi 6

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1:	Time: 11:32	Summa Vacuum ("Hg):	-28 / -29	Noticeable Odor?	
Reading #2:	Time:	Summa Vacuum ("Hg):		Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):		Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):		Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):		Noticeable Odor?	

Sketch of Sample Location:



Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #:	0529121
Project Name:	Energizer - Bennington
Location:	Bennington, VT
Project Manager:	Elise LeBlanc

Sample Location:	SSV-03	**Collector Name(s):**	Caldwell Payne
Address:	143 Scott St., Bennington, VT		
PID Meter Used: (Model, Serial #)	10.6 eV MiniRae SN: 592-927765	**Date:**	7/8/2020

Sample ID: **SSV-03-20200708-01**

Duplicate Sample? (Y/N): N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	4116	Flow Controller ID Number:	6535
Start Date/Time:	7/8/2020 13:56	Stop Date/Time:	7/8/2020 14:43
Start Pressure: (inches Hg) [1]	-29	Stop Pressure: (inches Hg) [2]	-5

Other Sampling Information:

Story/Level	1	Ground Surface (pavement, flooring)	Epoxy coated/painted cement clab	Depth of Vapor Probe (bgs)	~2" bgs recessed
Room (if applicable)	Office - Boiler Room	Slab thickness (if applicable)	10"	Distance from Building (if	
Indoor Air Temp (ºF)	90ºF	Potential Vapor Pathways Observed?	Minor cracks, brick wall adjacent	Distance to nearest Roadway (ft.)	150'
Intake Height Above Ground Level (ft.)	1.5	Noticeable Odor?	Weak oil-like odor	Outside Barometric Pressure ("Hg or mb)	29.93"

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:	13:40	C02		Methane	
	Time Stop:	13:41	O2		VOCs	0
	Volume Purged:	~25 ml				

Initial Sample Purge Vol (soil gas only):	60 ml	PID Reading (ppm):	

Water Dam Completed and Passed?	Passed	Time:	10 minutes	Comments:	

Shut-In Test Completed and Passed?	Passed	Vac held ("Hg): -15	Time held (mi 5

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:



Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #:	0529121
Project Name:	Energizer - Bennington
Location:	Bennington, VT
Project Manager:	Elise LeBlanc

Sample Location:	SSV-04	**Collector Name(s):**	Caldwell Payne
Address:	143 Scott St., Bennington, VT		
PID Meter Used: (Model, Serial #)	10.6 eV MiniRae SN: 592-927765	**Date:**	7/8/2020

Sample ID: **SSV-04-20200708-01**

Duplicate Sample? (Y/N): N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	4295	Flow Controller ID Number:	6088
Start Date/Time:	7/8/2020 14:08	Stop Date/Time:	7/8/2020 14:48
Start Pressure: (inches Hg) [1]	-27	Stop Pressure: (inches Hg) [2]	-5

Other Sampling Information:

Story/Level	1	Ground Surface (pavement, flooring)	Cement ramp/slab	Depth of Vapor Probe (bgs)	~2" bgs recessed
Room (if applicable)	Tank farm truck ramp	Slab thickness (if applicable)	17"	Distance from Building (if	
Indoor Air Temp (ºF)	89 ºF	Potential Vapor Pathways Observed?	No	Distance to nearest Roadway (ft.)	130'
Intake Height Above Ground Level (ft.)	1.5	Noticeable Odor?	Weak oil-like odor	Outside Barometric Pressure ("Hg or mb)	29.93"

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:	14:01	C02		Methane	
	Time Stop:	14:02	O2		VOCs	2.6
	Volume Purged:	~25 ml				

Initial Sample Purge Vol (soil gas only):	60 ml	PID Reading (ppm):	

Water Dam Completed and Passed?	Passed	Time:	10 minutes	Comments:	

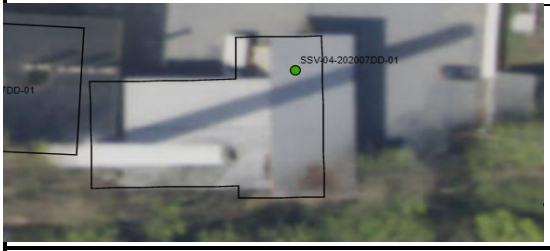
Shut-In Test Completed and Passed?	Passed	Vac held ("Hg): -12	Time held (mi 10

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:



Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Energizer Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	SSV-01	**Collector Name(s):**	K. Hipyack
Address:	143 Scott St		
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp	**Date:**	12/16/2020

Sample ID: SSV-01-20201216-01

Duplicate Sample? (Y/N): N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR (SUB-SLAB SOIL GAS) EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	3583	Flow Controller ID Number:	5954
Start Date/Time:	12/16/2020 1120	Stop Date/Time:	12/16/2020 1126
Start Pressure: (inches Hg) [1]	-20	Stop Pressure: (inches Hg) [2]	-0.5

Other Sampling Information:

Story/Level	1st	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant 2	Slab thickness (if applicable)	8"	Distance from Building (if	15 feet
Indoor Air Temp (°F)	63 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	0.5	Noticeable Odor?	None 0.2ppm PID	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Passed Time: 1110	Comments:	
Shut-In Test Completed and Passed?	Pass	Vac held ("Hg): -2	Time held (min): 5

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.2	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529127
Project Name: Energizer Bennington
Location: Bennington VT
Project Manager: Jason Hoatka

Sample Location:	SSV-02	**Collector Name(s):**	K. Popyack
Address:	143 Scott St		
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp	**Date:**	12/16/2020

Sample ID: SSV-02-20201216-01

Duplicate Sample? (Y/N): N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR (SUB-SLAB SOIL GAS) EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	34001104	Flow Controller ID Number:	6086
Start Date/Time:	12/16/2020 1156	Stop Date/Time:	12/16/2020 1206
Start Pressure: (inches Hg) [1]	-30.0	Stop Pressure: (inches Hg) [2]	-2.0

Other Sampling Information:

Story/Level	1st Floor	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant 2	Slab thickness (if applicable)	6-8"	Distance from Building (if	15 feet
Indoor Air Temp (°F)	63	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	0.5'	Noticeable Odor?	None 0.0 ppm	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	
Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				
Initial Sample Purge Vol (soil gas only):			PID Reading (ppm):		
Water Dam Completed and Passed?	Pass	Time: 1140		Comments:	
Shut-In Test Completed and Passed?	Pass	Vac held ("Hg): -4		Time held (min): 5	

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Energizer, Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	SSV-03	Collector Name(s):	K. Poppack
Address:	143 Scott St		
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp	Date:	12/16/2020

Sample ID: SSV-03-12162020-01

Duplicate Sample? (Y/N): N Duplicate Sample ID:

Type of sample (circle one): INDOOR AIR AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	34000623	Flow Controller ID Number:	5339
Start Date/Time:	12/16/2020 1039	Stop Date/Time:	12/16/2020 1049
Start Pressure: (inches Hg) [1]	-30	Stop Pressure: (inches Hg) [2]	-3.0

Other Sampling Information:

Story/Level	1st	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Boiler	Slab thickness (if applicable)	10"	Distance from Building (if	15 feet
Indoor Air Temp (°F)	65 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	.5	Noticeable Odor?	None 0.0ppm	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	
Field Screen PID Readings	Time Start:		C02	Methane	
	Time Stop:		O2	VOCs	
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Pass Time: 1025	Comments:	

Shut-In Test Completed and Passed?	pass	Vac held ("Hg): -5	Time held (min): 5

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.0	Time: 1026	Summa Vacuum ("Hg):	Noticeable Odor?	None
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Energizer Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	SSV-05	**Collector Name(s):**	K. Papyack
Address:	143 Scott St		
PID Meter Used: (Model, Serial #)	PID miniRae w/ 11.7 lamp	**Date:**	12/16/2020

Sample ID: SSV-05-20201216-01

Duplicate Sample? (Y/N): **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR | AMBIENT AIR | (SUB-SLAB SOIL GAS) | EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	3400,940	Flow Controller ID Number:	8481
Start Date/Time:	12/16/2020 1250	Stop Date/Time:	12/16/2020 1300
Start Pressure: (inches Hg) [1]	-30	Stop Pressure: (inches Hg) [2]	-2.0

Other Sampling Information:

Story/Level	1st floor	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant II	Slab thickness (if applicable)	8"-10"	Distance from Building (if	15 feet
Indoor Air Temp (°F)	63 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	0.5	Noticeable Odor?	None 0.0 PPM	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Pass Time: 1240	Comments:	

Shut-In Test Completed and Passed?	Pass	Vac held ("Hg): -14	Time held (min): 5

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Entergies Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	DUP-01	Collector Name(s):	K. Pippyack
Address:	143 Scott St	Date:	12/16/2020
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp		

Sample ID: DUP-01-20201216-01
Duplicate Sample? (Y/N):
Duplicate Sample ID:
Type of sample (circle one): INDOOR AIR AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS
Photograph description:

Summa® Information:

Canister Serial Number:	6301	Flow Controller ID Number:	6291
Start Date/Time:	12/16/2020 1200	Stop Date/Time:	12/16/2020 1210
Start Pressure: (inches Hg) [1]	-24	Stop Pressure: (inches Hg) [2]	-20

Other Sampling Information:

Story/Level	1st floor	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant 2	Slab thickness (if applicable)	8-10"	Distance from Building (if	15 feet
Indoor Air Temp (°F)	63 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	0.5	Noticeable Odor?	None 0.0 ppm	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\ (Probe \ Purge)	Final Vacuum:	\ (Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Yes	Time: 1148	Comments:
Shut-In Test Completed and Passed?	Yes	Vac held ("Hg): -7	Time held (min): 5

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Evergreen Brattleboro
Location: Brattleboro VT
Project Manager: Jason Kratzke

Sample Location:	OA-01	Collector Name(s):	K. Popyack
Address:	143 Scott St	Date:	12/15/2020
PID Meter Used: (Model, Serial #)	PID MiniRAE w/ 11.7 lamp		

Sample ID: ~~OA-01-20201215-01~~ OA-01-20201215-01

Duplicate Sample? (Y/N): N

Duplicate Sample ID:

Type of sample (circle one): INDOOR AIR | (AMBIENT AIR) | SUB-SLAB SOIL GAS | EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	4795	Flow Controller ID Number:	3114
Start Date/Time:	12/15/2020 1325	Stop Date/Time:	12/15/2020 1625
Start Pressure: (inches Hg) [1]	-25	Stop Pressure: (inches Hg) [2]	-5.5

Other Sampling Information:

Story/Level	Outside	Ground Surface (pavement, flooring)	Grass	Depth of Vapor Probe (bgs)	—
Room (if applicable)	"	Slab thickness (if applicable)	—	Distance from Building (if	15 feet
~~Indoor~~ Air Temp (°F) Outdoor	25°F °F	Potential Vapor Pathways Observed?	Cars passing	Distance to nearest Roadway (ft.)	10 ft
Intake Height Above Ground Level (ft.)	4.5	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\ (Probe \ Purge)	Final Vacuum:	\ (Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	
Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				
Initial Sample Purge Vol (soil gas only):			PID Reading (ppm):		
Water Dam Completed and Passed?		Time:		Comments:	
Shut-In Test Completed and Passed?		Vac held ("Hg):		Time held (min):	

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.0	Time: 11 32	Summa Vacuum ("Hg): -19	Noticeable Odor?	None
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Energizer, Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	IA-01	Collector Name(s):	K. Popyack
Address:	~~143~~ Scott St		
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp	Date:	12/15/2020

Sample ID: IA-01-20201215-01

Duplicate Sample? (Y/N): N Duplicate Sample ID:

Type of sample (circle one): (INDOOR AIR) AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	2898	Flow Controller ID Number:	8533
Start Date/Time:	12/15/2020 0830	Stop Date/Time:	12/15/2020 1630
Start Pressure: (inches Hg) [1]	-30	Stop Pressure: (inches Hg) [2]	-6.5

Other Sampling Information:

Story/Level	1st	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant II	Slab thickness (if applicable)		Distance from Building (if	15 feet
Indoor Air Temp (°F)	65 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	4.5'	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Time:	Comments:	

Shut-In Test Completed and Passed?		Vac held ("Hg):	Time held (min):

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.0	Time: 11:29	Summa Vacuum ("Hg): -22.5	Noticeable Odor?	None
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Energizer Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	IA-02	Collector Name(s):	K. Papyack
Address:	143 Scott St	Date:	12/15/2020
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp		

Sample ID: IA-02-20201215-01

Duplicate Sample? (Y/N): N — Duplicate Sample ID:

Type of sample (circle one): (INDOOR AIR) AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	8450	Flow Controller ID Number:	886
Start Date/Time:	12/15/2020 0840	Stop Date/Time:	12/15/2020 1640
Start Pressure: (inches Hg) [1]	-23	Stop Pressure: (inches Hg) [2]	-2.0

Other Sampling Information:

Story/Level	1st floor	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant II	Slab thickness (if applicable)		Distance from Building (if	15 feet
Indoor Air Temp (°F)	65 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	4.5'	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Time:	Comments:	
Shut-In Test Completed and Passed?		Vac held ("Hg):	Time held (min):

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.0	Time: 1128	Summa Vacuum ("Hg): -19	Noticeable Odor?	None
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Environmental Resources Management

Project #: 0529121
Project Name: Energizer, Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	IA-03	Collector Name(s):	K. Popyack
Address:	143 Scott St	Date:	12/15/2020
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp		

Sample ID: IA-03-20201215-01

Duplicate Sample? (Y/N): N Duplicate Sample ID:

Type of sample (circle one): (INDOOR AIR) AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	2677	Flow Controller ID Number:	2759
Start Date/Time:	12/15/2020 0853	Stop Date/Time:	12/15/2020 1655
Start Pressure: (inches Hg) [1]	-30	Stop Pressure: (inches Hg) [2]	-6.5

Other Sampling Information:

Story/Level	1st floor	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Boiler House	Slab thickness (if applicable)		Distance from Building (if	15 feet
Indoor Air Temp (°F)	65 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	4.5'	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Time:	Comments:	

Shut-In Test Completed and Passed?		Vac held ("Hg):	Time held (min):

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.0	Time: 1130	Summa Vacuum ("Hg): -24.0	Noticeable Odor?	None
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

ERM

Environmental Resources Management

Project #: 0529121
Project Name: Energizer Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	IA-05	Collector Name(s):	K. Popyack
Address:	143 Scott St	Date:	12/15/2020
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp		

Sample ID: IA-05-20201215-01

Duplicate Sample? (Y/N): N

Duplicate Sample ID:

Type of sample (circle one): (INDOOR AIR) AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	6007	Flow Controller ID Number:	5187
Start Date/Time:	12/15/2020 0845	Stop Date/Time:	12/15/2020 1626
Start Pressure: (inches Hg) [1]	-30	Stop Pressure: (inches Hg) [2]	-1.0

Other Sampling Information:

Story/Level	1st floor	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant II	Slab thickness (if applicable)		Distance from Building (if	15 feet
Indoor Air Temp (°F)	65 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	4.5	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Time:	Comments:	

Shut-In Test Completed and Passed?		Vac held ("Hg):	Time held (min):

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.0ppm	Time: 1127	Summa Vacuum ("Hg): -21	Noticeable Odor?	None
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

ERM

Environmental Resources Management

Project #: 0529121
Project Name: Energizer Bennington
Location: Bennington VT
Project Manager: Jason Hnatko

Sample Location:	DUP-01 ~~[illegible]~~	Collector Name(s):	K. Popyack
Address:	243 Scott St	Date:	12/15/2020
PID Meter Used: (Model, Serial #)	PID MiniRae w/ 11.7 lamp		

Sample ID: ~~[illegible]~~ DUP-01-20201215-01

Duplicate Sample? (Y/N): Y — Duplicate Sample ID:

Type of sample (circle one): (INDOOR AIR) AMBIENT AIR SUB-SLAB SOIL GAS EXTERIOR SOIL GAS

Photograph description:

Summa® Information:

Canister Serial Number:	4473	Flow Controller ID Number:	3105
Start Date/Time:	12/15/2020 1200	Stop Date/Time:	12/15/2020 2000
Start Pressure: (inches Hg) [1]	-28	Stop Pressure: (inches Hg) [2]	-1.0

Other Sampling Information:

Story/Level	1st floor	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (bgs)	
Room (if applicable)	Plant II	Slab thickness (if applicable)		Distance from Building (if	15 feet
Indoor Air Temp (°F)	65 °F	Potential Vapor Pathways Observed?		Distance to nearest Roadway (ft.)	
Intake Height Above Ground Level (ft.)	4.5	Noticeable Odor?	None	Outside Barometric Pressure ("Hg or mb)	

Purge Time (for exterior soil gas or sub-slab if needed)

Purge Rate (ml/min):		Purge Total Time (min):	
Purge Start Time:		Purge End Time:	
Initial Vacuum:	\	Final Vacuum:	\
	(Probe \ Purge)		(Probe \ Purge)

Helium Purge Test	~He Shroud:		ppm	% calc:	
	~He Syringe:		ppm	He on Point:	

Field Screen PID Readings	Time Start:		C02		Methane
	Time Stop:		O2		VOCs
	Volume Purged:				

Initial Sample Purge Vol (soil gas only):		PID Reading (ppm):	
Water Dam Completed and Passed?	Time:	Comments:	

Shut-In Test Completed and Passed?		Vac held ("Hg):	Time held (min):

Any Other Quality Control Checks Performed and Results? (i.e., helium shroud, liquid tracer, etc.):

Interim Monitoring (for indoor air only or if needed for soil gas)

Reading #1: 0.0	Time: 1128	Summa Vacuum ("Hg): -20	Noticeable Odor?	None
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor?	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2- If conducting a purge of soil gas inside a building, release purged air outside or capture purged air in tedlar bag and then release outside.

3 - If conducting both indoor air and soil gas sampling, all indoor air sampling must be completed and canisters closed before soil gas sampling can be started. Call VI team lead for more information.

Appendix D STANDARD OPERATING PROCEDURES

Standard Operating Procedure: Indoor Air and Outdoor Ambient Air Sampling

Version #2
October 2020

Prepared by:
ERM Consulting & Engineering, Inc.
One Beacon Street, 5th Floor
Boston, MA 02108

CONTENTS

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3. HEALTH AND SAFETY 1

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1. INTRODUCTION

The purpose of this standard operating procedure (SOP) is to detail the procedures to be used to collect indoor air and outdoor ambient air samples for analysis of volatile organic compounds using The United States Environmental Protection Agency's (USEPA's) TO-15 test method as part of a vapor intrusion assessment.

2. EQUIPMENT AND MATERIALS

- Site map with the sample locations;
- A copy of the Health and Safety Plan and Work Plan(s);
- SUMMA® canisters;
- Pre-calibrated flow controllers equipped with an in-line particulate filter and vacuum gauge;
- Labels/tags;
- Adjustable wrench;
- Shipping packaging provided by the laboratory;
- Sampling field form;
- Indoor Air Building Survey Checklist or similar;
- Chain of custody (CoC) form; and
- Field book.

3. HEALTH AND SAFETY

SOPs are designed to provide technical guidance and do not provide detailed or comprehensive guidance related to health and safety, nor do they represent guidance on safe work procedures for the tasks described. Appropriate tips related to health and safety issues associated with specific tasks may be included within technical descriptions for information's sake only.

Health and safety aspects of all projects and project tasks should be assessed and planned using ERM's established health and safety planning procedures.

4. PROCEDURE

4.1 General Procedures

- Field staff will avoid activities immediately before and during the sampling that may contaminate the sample (e.g., using markers, fueling vehicles, etc.).
- If possible, all windows and doors of the facility will be closed during sampling and for 24 hours prior to sampling.
- Weather information (temperature, barometric pressure, relative humidity, wind speed, and wind direction) and approximate indoor temperature will be recorded at the beginning of the sampling event. Field staff will record substantial changes to these conditions that may have occurred 24 to 48 hours prior to, and during the course of sampling.

4.2 Sampling Procedures

- The sampling locations will be identified on a floor plan completed with the Building Survey. A floor plan drawing will also be completed that identifies locations of HVAC equipment, chemical storage areas, garages, doorways, stairways, sumps, drains, utility perforations, north direction, and separate footing sections. For the background ambient air sample, a location upwind (on the day of sampling) from the building(s) will be sampled.
- An evacuated SUMMA® canister will be used to collect each sample. The canister will be clean and provided by the laboratory, along with a flow controller equipped with an in-line particulate filter and vacuum gauge. Each flow controller will be pre-calibrated by the laboratory for the desired flow rate or duration of sample collection. For the purposes of commercial indoor air sampling, the flow controller will be calibrated for an 8 hour sampling period.
- A photoionization detector (PID) measurement will be collected before sampling begins and prior to the completion of the indoor air sampling. The PID measurements will be recorded on the field sampling form.
- The air intake of each canister will be located at a breathing-zone height of approximately 3 to 5 feet above the floor surface.
- The protective brass plug will be removed from each canister and the pre-calibrated flow controller will be attached.
- The unique identification numbers for each SUMMA® canister and flow controller will be recorded, along with the initial canister pressures on the vacuum gauge. These numbers and values will be recorded on the field sampling form and on the CoC form for each sample.
- The valve on the SUMMA® canister will be opened. The time each valve was opened (beginning of sampling) will be recorded on the field sampling form and on the CoC.
- The outdoor ambient air sample will commence up to 1 hour prior to initiating the indoor air samples and will finish within an hour of the indoor air monitoring being complete to make sure that the indoor air sampling period is covered by the outdoor ambient air sampling period.
- A building survey will be conducted during sample collection to document building conditions and compile a list of any products/chemicals that are present during the sampling event.
- Potential VOC sources will be noted on the building survey.

- Sample collection will be stopped after the scheduled duration of sample collected but when the canister still has approximately 5 inches of mercury remaining in the canister.
- The final vacuum pressure and time will be recorded on the field sampling form after the canister valve has been closed.
- The flow controller from the canister will be removed and the protective brass plug replaced onto the canister intake.
- The sample labels/tags (sample name, time/date of sampling, etc.) will be attached to the canister as directed by the laboratory.
- The canister and other laboratory supplied equipment will be placed in the packaging provided by the laboratory.
- The CoC form will be completed, making sure to include the identification numbers for each canister and flow controller, the start and end times for each canister's sample collection period, and the initial and final canister pressures on the vacuum gauge.
- The sample canisters will be submitted to the laboratory under CoC and analyzed via USEPA Method TO-15. If the pressure reading of a canister is "zero" when logged in by the laboratory, the sample will not be analyzed.



Figure 1: A Typical Indoor Air Sample Setup

Appendix E LABORATORY REPORTS

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-172344-1
Laboratory Sample Delivery Group: 480-172344-1
Client Project/Site: Bennington, VT - Groundwater Analysis

For:
ERM-Northeast
One Beacon Steet
5th Floor
Boston, Massachusetts 02108

Attn: Elise LeBlanc

Authorized for release by:
7/27/2020 10:32:32 AM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

John Schove, Project Manager II
(716)504-9838
John.Schove@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Job ID: 480-172344-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-172344-1

Comments
No additional comments.

Receipt
The samples were received on 7/15/2020 8:00 AM and 7/16/2020 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.3º C and 3.4º C.

GC/MS VOA
Method 8260C: The method requirement for no headspace was not met. The following volatile sample was analyzed with significant headspace in the sample container(s): MW-102-10-15-20200713-01 (480-172344-9). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Client Sample ID: FRB-001-20200713-01 — Lab Sample ID: 480-172344-1

No Detections.

Client Sample ID: ERB-001-20200713-01 — Lab Sample ID: 480-172344-2

No Detections.

Client Sample ID: TB-20200713-01 — Lab Sample ID: 480-172344-3

No Detections.

Client Sample ID: MW-102-5-10-20200713-01 — Lab Sample ID: 480-172344-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	3.7		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-103-8-13-20200713-01 — Lab Sample ID: 480-172344-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.55	J	1.0	0.34	ug/L	1		8260C	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.9		1.9	1.9	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.7		1.9	1.9	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		1.9	1.9	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		1.9	1.9	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	73		1.9	1.9	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-103-13-18-20200713-01 — Lab Sample ID: 480-172344-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.65	J	1.0	0.34	ug/L	1		8260C	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.4		2.0	2.0	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.0		2.0	2.0	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	2.0	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	38		2.0	2.0	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-104-5-10-20200713-01 — Lab Sample ID: 480-172344-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.3		1.0	0.34	ug/L	1		8260C	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.6		1.9	1.9	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		1.9	1.9	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	20		1.9	1.9	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-104-10-15-20200713-01 — Lab Sample ID: 480-172344-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.3		1.0	0.34	ug/L	1		8260C	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.5		1.8	1.8	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		1.8	1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.0		1.8	1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	21		1.8	1.8	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-102-10-15-20200713-01 — Lab Sample ID: 480-172344-9

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	2.6		1.8	1.8	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Client Sample ID: DUP-001-20200713-01 — Lab Sample ID: 480-172344-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	2.9		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-101-10-15-20200713-01 — Lab Sample ID: 480-172344-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.70	J	1.0	0.46	ug/L	1		8260C	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.1		1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.9		1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	21		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-101-5-10-20200713-01 — Lab Sample ID: 480-172344-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.65	J	1.0	0.46	ug/L	1		8260C	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.4		1.6	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.6		1.6	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.0		1.6	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	18		1.6	1.6	ng/L	1		537 (modified)	Total/NA

Client Sample ID: ERM-8-20200714-01 — Lab Sample ID: 480-172344-13

No Detections.

Client Sample ID: ERM-6-20200714-01 — Lab Sample ID: 480-172344-14

No Detections.

Client Sample ID: DUP-002-20200714-01 — Lab Sample ID: 480-172344-15

No Detections.

Client Sample ID: ERM-11S-20200714-01 — Lab Sample ID: 480-172344-16

No Detections.

Client Sample ID: ERM-5S-20200714-01 — Lab Sample ID: 480-172344-17

No Detections.

Client Sample ID: ERM-5MA-20200714-01 — Lab Sample ID: 480-172427-1

No Detections.

Client Sample ID: ERB-002-20200714-01 — Lab Sample ID: 480-172427-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: FRB-001-20200713-01

Lab Sample ID: 480-172344-1

Date Collected: 07/13/20 12:30
Matrix: Water
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorooctanoic acid (PFOA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*98*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C2 PFDoA	*82*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C2 PFHxA	*97*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C2 PFTeDA	*70*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C2 PFUnA	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C3 PFBS	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C4 PFHpA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C4 PFOA	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C4 PFOS	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
13C5 PFNA	*97*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*
18O2 PFHxS	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:47*	*1*

Client Sample ID: ERB-001-20200713-01

Lab Sample ID: 480-172344-2

Date Collected: 07/13/20 12:30
Matrix: Water
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorooctanoic acid (PFOA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 19:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*98*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:55*	*1*
13C2 PFDoA	*76*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:55*	*1*
13C2 PFHxA	*96*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:55*	*1*
13C2 PFTeDA	*67*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:55*	*1*
13C2 PFUnA	*84*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:55*	*1*

Client Sample ID: ERB-001-20200713-01

Lab Sample ID: 480-172344-2
Date Collected: 07/13/20 12:30
Matrix: Water
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	94		50 - 150	07/17/20 11:52	07/17/20 19:55	1
13C4 PFHpA	96		50 - 150	07/17/20 11:52	07/17/20 19:55	1
13C4 PFOA	94		50 - 150	07/17/20 11:52	07/17/20 19:55	1
13C4 PFOS	90		50 - 150	07/17/20 11:52	07/17/20 19:55	1
13C5 PFNA	93		50 - 150	07/17/20 11:52	07/17/20 19:55	1
18O2 PFHxS	92		50 - 150	07/17/20 11:52	07/17/20 19:55	1

Client Sample ID: TB-20200713-01

Lab Sample ID: 480-172344-3
Date Collected: 07/13/20 00:00
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 14:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 14:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 14:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 14:18	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 14:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 14:18	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 14:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 14:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 14:18	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 14:18	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 14:18	1
Acetone	ND		10	3.0	ug/L			07/22/20 14:18	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 14:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 14:18	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 14:18	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 14:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 14:18	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 14:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 14:18	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 14:18	1
Chloroform	ND		1.0	0.34	ug/L			07/22/20 14:18	1
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 14:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 14:18	1
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 14:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 14:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 14:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 14:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 14:18	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 14:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 14:18	1

Client Sample ID: TB-20200713-01

Lab Sample ID: 480-172344-3

Date Collected: 07/13/20 00:00
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 14:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 14:18	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 14:18	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 14:18	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 14:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 14:18	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 14:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 14:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 14:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*07/22/20 14:18*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*07/22/20 14:18*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*07/22/20 14:18*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*07/22/20 14:18*	*1*

Client Sample ID: MW-102-5-10-20200713-01

Lab Sample ID: 480-172344-4

Date Collected: 07/13/20 14:10
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 14:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 14:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 14:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 14:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 14:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 14:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 14:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 14:42	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 14:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 14:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 14:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 14:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 14:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 14:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 14:42	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 14:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 14:42	1
Acetone	ND		10	3.0	ug/L			07/22/20 14:42	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 14:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 14:42	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 14:42	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 14:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 14:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 14:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 14:42	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 14:42	1

Client Sample ID: MW-102-5-10-20200713-01
Date Collected: 07/13/20 14:10
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.34	ug/L			07/22/20 14:42	1
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 14:42	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 14:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 14:42	1
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 14:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 14:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 14:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 14:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 14:42	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 14:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 14:42	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 14:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 14:42	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 14:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 14:42	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 14:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 14:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 14:42	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 14:42	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 14:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 14:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*07/22/20 14:42*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*07/22/20 14:42*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*07/22/20 14:42*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/22/20 14:42*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorooctanoic acid (PFOA)	**3.7**		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*86*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C2 PFDoA	*77*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C2 PFHxA	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C2 PFTeDA	*73*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C2 PFUnA	*77*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C3 PFBS	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*

Client Sample ID: MW-102-5-10-20200713-01

Lab Sample ID: 480-172344-4
Date Collected: 07/13/20 14:10
Matrix: Water
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFHpA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C4 PFOA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C4 PFOS	*84*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
13C5 PFNA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*
18O2 PFHxS	*90*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:03*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 21:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 15:54	1

Client Sample ID: MW-103-8-13-20200713-01

Lab Sample ID: 480-172344-5
Date Collected: 07/13/20 14:20
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 15:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 15:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 15:04	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 15:04	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 15:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 15:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 15:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 15:04	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 15:04	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 15:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 15:04	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 15:04	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 15:04	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 15:04	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 15:04	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 15:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 15:04	1
Acetone	ND		10	3.0	ug/L			07/22/20 15:04	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 15:04	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 15:04	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 15:04	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 15:04	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 15:04	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 15:04	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 15:04	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 15:04	1
Chloroform	**0.55**	**J**	1.0	0.34	ug/L			07/22/20 15:04	1
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 15:04	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 15:04	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 15:04	1

Client Sample ID: MW-103-8-13-20200713-01

Date Collected: 07/13/20 14:20
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 15:04	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 15:04	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 15:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 15:04	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 15:04	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 15:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 15:04	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 15:04	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 15:04	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 15:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 15:04	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 15:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 15:04	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 15:04	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 15:04	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 15:04	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 15:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*07/22/20 15:04*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*07/22/20 15:04*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*07/22/20 15:04*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/22/20 15:04*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**2.9**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorodecanoic acid (PFDA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluoroheptanoic acid (PFHpA)	**5.7**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorohexanoic acid (PFHxA)	**2.3**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorononanoic acid (PFNA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorooctanesulfonic acid (PFOS)	**2.2**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorooctanoic acid (PFOA)	**73**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C2 PFDoA	*86*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C2 PFHxA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C2 PFUnA	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C3 PFBS	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C4 PFHpA	*93*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C4 PFOA	*96*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*

Client Sample ID: MW-103-8-13-20200713-01

Lab Sample ID: 480-172344-5
Date Collected: 07/13/20 14:20
Matrix: Water
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
13C5 PFNA	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*
18O2 PFHxS	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:11*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 21:52	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 15:56	1

Client Sample ID: MW-103-13-18-20200713-01

Lab Sample ID: 480-172344-6
Date Collected: 07/13/20 15:15
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 15:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 15:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 15:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 15:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 15:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 15:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 15:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 15:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 15:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 15:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 15:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 15:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 15:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 15:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 15:27	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 15:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 15:27	1
Acetone	ND		10	3.0	ug/L			07/22/20 15:27	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 15:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 15:27	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 15:27	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 15:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 15:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 15:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 15:27	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 15:27	1
Chloroform	**0.65**	**J**	1.0	0.34	ug/L			07/22/20 15:27	1
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 15:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 15:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 15:27	1
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 15:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 15:27	1

Client Sample ID: MW-103-13-18-20200713-01

Date Collected: 07/13/20 15:15
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 15:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 15:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 15:27	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 15:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 15:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 15:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 15:27	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 15:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 15:27	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 15:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 15:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 15:27	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 15:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 15:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 15:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*07/22/20 15:27*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*07/22/20 15:27*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*07/22/20 15:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/22/20 15:27*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**2.4**		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorodecanoic acid (PFDA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluoroheptanoic acid (PFHpA)	**3.0**		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorononanoic acid (PFNA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorooctanesulfonic acid (PFOS)	**2.1**		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorooctanoic acid (PFOA)	**38**		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 20:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C2 PFDoA	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C2 PFHxA	*103*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C2 PFTeDA	*75*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C2 PFUnA	*90*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C3 PFBS	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C4 PFHpA	*98*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C4 PFOA	*100*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C4 PFOS	*89*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*
13C5 PFNA	*96*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*

Client Sample ID: MW-103-13-18-20200713-01

Lab Sample ID: 480-172344-6

Date Collected: 07/13/20 15:15
Matrix: Water
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:20*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 21:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 15:57	1

Client Sample ID: MW-104-5-10-20200713-01

Lab Sample ID: 480-172344-7

Date Collected: 07/13/20 16:50
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 15:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 15:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 15:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 15:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 15:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 15:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 15:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 15:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 15:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 15:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 15:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 15:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 15:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 15:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 15:50	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 15:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 15:50	1
Acetone	ND		10	3.0	ug/L			07/22/20 15:50	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 15:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 15:50	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 15:50	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 15:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 15:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 15:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 15:50	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 15:50	1
Chloroform	**1.3**		1.0	0.34	ug/L			07/22/20 15:50	1
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 15:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 15:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 15:50	1
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 15:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 15:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 15:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 15:50	1

Client Sample ID: MW-104-5-10-20200713-01

Date Collected: 07/13/20 16:50
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 15:50	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 15:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 15:50	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 15:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 15:50	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 15:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 15:50	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 15:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 15:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 15:50	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 15:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 15:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 15:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*07/22/20 15:50*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*07/22/20 15:50*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*07/22/20 15:50*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/22/20 15:50*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**2.6**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorodecanoic acid (PFDA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorononanoic acid (PFNA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorooctanesulfonic acid (PFOS)	**2.9**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorooctanoic acid (PFOA)	**20**		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.9	ng/L		07/17/20 11:52	07/17/20 20:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C2 PFDoA	*85*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C2 PFHxA	*97*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C2 PFTeDA	*75*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C2 PFUnA	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C3 PFBS	*98*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C4 PFHpA	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C4 PFOA	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C4 PFOS	*84*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
13C5 PFNA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*
18O2 PFHxS	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:28*	*1*

Client Sample ID: MW-104-5-10-20200713-01

Lab Sample ID: 480-172344-7
Matrix: Water
Date Collected: 07/13/20 16:50
Date Received: 07/15/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 21:59	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 15:59	1

Client Sample ID: MW-104-10-15-20200713-01

Lab Sample ID: 480-172344-8
Matrix: Water
Date Collected: 07/13/20 17:40
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 16:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 16:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 16:13	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 16:13	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 16:13	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 16:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 16:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 16:13	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 16:13	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 16:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 16:13	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 16:13	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 16:13	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 16:13	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 16:13	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 16:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 16:13	1
Acetone	ND		10	3.0	ug/L			07/22/20 16:13	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 16:13	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 16:13	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 16:13	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 16:13	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 16:13	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 16:13	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 16:13	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 16:13	1
Chloroform	**1.3**		1.0	0.34	ug/L			07/22/20 16:13	1
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 16:13	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 16:13	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 16:13	1
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 16:13	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 16:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 16:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 16:13	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 16:13	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 16:13	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 16:13	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 16:13	1

Client Sample ID: MW-104-10-15-20200713-01

Date Collected: 07/13/20 17:40
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 16:13	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 16:13	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 16:13	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 16:13	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 16:13	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 16:13	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 16:13	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 16:13	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 16:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*07/22/20 16:13*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*07/22/20 16:13*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*07/22/20 16:13*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*07/22/20 16:13*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**2.5**		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluoroheptanoic acid (PFHpA)	**2.0**		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorooctanesulfonic acid (PFOS)	**3.0**		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorooctanoic acid (PFOA)	**21**		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*86*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C2 PFDoA	*70*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C2 PFHxA	*93*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C2 PFTeDA	*71*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C2 PFUnA	*76*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C3 PFBS	*89*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C4 PFHpA	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C4 PFOA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C4 PFOS	*81*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
13C5 PFNA	*87*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*
18O2 PFHxS	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:36*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:03	1

Client Sample ID: MW-104-10-15-20200713-01

Lab Sample ID: 480-172344-8

Date Collected: 07/13/20 17:40
Matrix: Water
Date Received: 07/15/20 08:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:05	1

Client Sample ID: MW-102-10-15-20200713-01

Lab Sample ID: 480-172344-9

Date Collected: 07/13/20 15:00
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 11:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 11:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 11:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 11:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 11:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 11:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 11:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 11:37	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 11:37	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 11:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 11:37	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 11:37	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 11:37	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 11:37	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 11:37	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 11:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 11:37	1
Acetone	ND		10	3.0	ug/L			07/22/20 11:37	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 11:37	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 11:37	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 11:37	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 11:37	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 11:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 11:37	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 11:37	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 11:37	1
Chloroform	ND		1.0	0.34	ug/L			07/22/20 11:37	1
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 11:37	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 11:37	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 11:37	1
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 11:37	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 11:37	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 11:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 11:37	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 11:37	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 11:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 11:37	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 11:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 11:37	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 11:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 11:37	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 11:37	1

Client Sample ID: MW-102-10-15-20200713-01

Date Collected: 07/13/20 15:00
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 11:37	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 11:37	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 11:37	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 11:37	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 11:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 11:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*07/22/20 11:37*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*07/22/20 11:37*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*07/22/20 11:37*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/22/20 11:37*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorooctanoic acid (PFOA)	**2.6**		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		07/17/20 11:52	07/17/20 20:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C2 PFDoA	*78*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C2 PFHxA	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C2 PFTeDA	*75*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C2 PFUnA	*75*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C3 PFBS	*90*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C4 PFHpA	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C4 PFOA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C4 PFOS	*83*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
13C5 PFNA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*
18O2 PFHxS	*93*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:45*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:07	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:10	1

Client Sample ID: DUP-001-20200713-01

Date Collected: 07/13/20 12:00
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/21/20 15:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/21/20 15:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/21/20 15:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/21/20 15:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/21/20 15:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/21/20 15:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/21/20 15:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/21/20 15:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/21/20 15:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/21/20 15:39	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/21/20 15:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/21/20 15:39	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/21/20 15:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/21/20 15:39	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/21/20 15:39	1
2-Hexanone	ND		5.0	1.2	ug/L			07/21/20 15:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/21/20 15:39	1
Acetone	ND		10	3.0	ug/L			07/21/20 15:39	1
Benzene	ND		1.0	0.41	ug/L			07/21/20 15:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/21/20 15:39	1
Bromoform	ND		1.0	0.26	ug/L			07/21/20 15:39	1
Bromomethane	ND		1.0	0.69	ug/L			07/21/20 15:39	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/21/20 15:39	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/21/20 15:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/21/20 15:39	1
Chloroethane	ND		1.0	0.32	ug/L			07/21/20 15:39	1
Chloroform	ND		1.0	0.34	ug/L			07/21/20 15:39	1
Chloromethane	ND		1.0	0.35	ug/L			07/21/20 15:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/21/20 15:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/21/20 15:39	1
Cyclohexane	ND		1.0	0.18	ug/L			07/21/20 15:39	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/21/20 15:39	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/21/20 15:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/21/20 15:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/21/20 15:39	1
Methyl acetate	ND		2.5	1.3	ug/L			07/21/20 15:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/21/20 15:39	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/21/20 15:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/21/20 15:39	1
Styrene	ND		1.0	0.73	ug/L			07/21/20 15:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/21/20 15:39	1
Toluene	ND		1.0	0.51	ug/L			07/21/20 15:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/21/20 15:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/21/20 15:39	1
Trichloroethene	ND		1.0	0.46	ug/L			07/21/20 15:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/21/20 15:39	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/21/20 15:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/21/20 15:39	1

Client Sample ID: DUP-001-20200713-01

Lab Sample ID: 480-172344-10

Date Collected: 07/13/20 12:00
Matrix: Water
Date Received: 07/15/20 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*07/21/20 15:39*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*07/21/20 15:39*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*07/21/20 15:39*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/21/20 15:39*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorooctanoic acid (PFOA)	**2.9**		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 20:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*89*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C2 PFDoA	*90*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C2 PFHxA	*104*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C2 PFUnA	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C3 PFBS	*98*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C4 PFHpA	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C4 PFOA	*97*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C4 PFOS	*83*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
13C5 PFNA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*
18O2 PFHxS	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 20:53*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:11	1

Client Sample ID: MW-101-10-15-20200713-01

Lab Sample ID: 480-172344-11

Date Collected: 07/13/20 18:05
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/21/20 16:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/21/20 16:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/21/20 16:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/21/20 16:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/21/20 16:03	1

Client Sample ID: MW-101-10-15-20200713-01

Date Collected: 07/13/20 18:05
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/21/20 16:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/21/20 16:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/21/20 16:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/21/20 16:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/21/20 16:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/21/20 16:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/21/20 16:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/21/20 16:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/21/20 16:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/21/20 16:03	1
2-Hexanone	ND		5.0	1.2	ug/L			07/21/20 16:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/21/20 16:03	1
Acetone	ND		10	3.0	ug/L			07/21/20 16:03	1
Benzene	ND		1.0	0.41	ug/L			07/21/20 16:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/21/20 16:03	1
Bromoform	ND		1.0	0.26	ug/L			07/21/20 16:03	1
Bromomethane	ND		1.0	0.69	ug/L			07/21/20 16:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/21/20 16:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/21/20 16:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/21/20 16:03	1
Chloroethane	ND		1.0	0.32	ug/L			07/21/20 16:03	1
Chloroform	ND		1.0	0.34	ug/L			07/21/20 16:03	1
Chloromethane	ND		1.0	0.35	ug/L			07/21/20 16:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/21/20 16:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/21/20 16:03	1
Cyclohexane	ND		1.0	0.18	ug/L			07/21/20 16:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/21/20 16:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/21/20 16:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/21/20 16:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/21/20 16:03	1
Methyl acetate	ND		2.5	1.3	ug/L			07/21/20 16:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/21/20 16:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/21/20 16:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/21/20 16:03	1
Styrene	ND		1.0	0.73	ug/L			07/21/20 16:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/21/20 16:03	1
Toluene	ND		1.0	0.51	ug/L			07/21/20 16:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/21/20 16:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/21/20 16:03	1
Trichloroethene	**0.70**	**J**	1.0	0.46	ug/L			07/21/20 16:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/21/20 16:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/21/20 16:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/21/20 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*07/21/20 16:03*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*07/21/20 16:03*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*07/21/20 16:03*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*07/21/20 16:03*	*1*

Client Sample ID: MW-101-10-15-20200713-01

Lab Sample ID: 480-172344-11

Date Collected: 07/13/20 18:05
Matrix: Water
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluoroheptanoic acid (PFHpA)	**3.1**		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorohexanoic acid (PFHxA)	**3.9**		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorooctanesulfonic acid (PFOS)	**2.6**		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorooctanoic acid (PFOA)	**21**		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 21:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*88*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C2 PFDoA	*79*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C2 PFHxA	*93*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C2 PFTeDA	*69*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C2 PFUnA	*74*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C3 PFBS	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C4 PFHpA	*87*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C4 PFOA	*90*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C4 PFOS	*76*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
13C5 PFNA	*89*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*
18O2 PFHxS	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:01*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:13	1

Client Sample ID: MW-101-5-10-20200713-01

Lab Sample ID: 480-172344-12

Date Collected: 07/13/20 17:00
Matrix: Water
Date Received: 07/15/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/21/20 16:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/21/20 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/21/20 16:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/21/20 16:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/21/20 16:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/21/20 16:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/21/20 16:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/21/20 16:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/21/20 16:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/21/20 16:26	1

Client Sample ID: MW-101-5-10-20200713-01

Date Collected: 07/13/20 17:00
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-12

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/21/20 16:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/21/20 16:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/21/20 16:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/21/20 16:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/21/20 16:26	1
2-Hexanone	ND		5.0	1.2	ug/L			07/21/20 16:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/21/20 16:26	1
Acetone	ND		10	3.0	ug/L			07/21/20 16:26	1
Benzene	ND		1.0	0.41	ug/L			07/21/20 16:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/21/20 16:26	1
Bromoform	ND		1.0	0.26	ug/L			07/21/20 16:26	1
Bromomethane	ND		1.0	0.69	ug/L			07/21/20 16:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/21/20 16:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/21/20 16:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/21/20 16:26	1
Chloroethane	ND		1.0	0.32	ug/L			07/21/20 16:26	1
Chloroform	ND		1.0	0.34	ug/L			07/21/20 16:26	1
Chloromethane	ND		1.0	0.35	ug/L			07/21/20 16:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/21/20 16:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/21/20 16:26	1
Cyclohexane	ND		1.0	0.18	ug/L			07/21/20 16:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/21/20 16:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/21/20 16:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/21/20 16:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/21/20 16:26	1
Methyl acetate	ND		2.5	1.3	ug/L			07/21/20 16:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/21/20 16:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/21/20 16:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/21/20 16:26	1
Styrene	ND		1.0	0.73	ug/L			07/21/20 16:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/21/20 16:26	1
Toluene	ND		1.0	0.51	ug/L			07/21/20 16:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/21/20 16:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/21/20 16:26	1
Trichloroethene	**0.65**	**J**	1.0	0.46	ug/L			07/21/20 16:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/21/20 16:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/21/20 16:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/21/20 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*07/21/20 16:26*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*07/21/20 16:26*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*07/21/20 16:26*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/21/20 16:26*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1

Client Sample ID: MW-101-5-10-20200713-01

Lab Sample ID: 480-172344-12
Matrix: Water
Date Collected: 07/13/20 17:00
Date Received: 07/15/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	**3.4**		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorohexanoic acid (PFHxA)	**3.6**		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorooctanesulfonic acid (PFOS)	**3.0**		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorooctanoic acid (PFOA)	**18**		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		07/17/20 11:52	07/17/20 21:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*87*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C2 PFDoA	*79*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C2 PFHxA	*97*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C2 PFTeDA	*76*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C2 PFUnA	*84*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C3 PFBS	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C4 PFHpA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C4 PFOA	*96*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C4 PFOS	*80*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
13C5 PFNA	*93*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*
18O2 PFHxS	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 21:18*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:14	1

Client Sample ID: ERM-8-20200714-01

Lab Sample ID: 480-172344-13
Matrix: Water
Date Collected: 07/14/20 10:00
Date Received: 07/15/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:16	1

Client Sample ID: ERM-6-20200714-01

Lab Sample ID: 480-172344-14
Matrix: Water
Date Collected: 07/14/20 10:00
Date Received: 07/15/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:38	1

Client Sample ID: ERM-6-20200714-01
Lab Sample ID: 480-172344-14
Date Collected: 07/14/20 10:00
Matrix: Water
Date Received: 07/15/20 08:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:56	1

Client Sample ID: DUP-002-20200714-01
Lab Sample ID: 480-172344-15
Date Collected: 07/14/20 12:00
Matrix: Water
Date Received: 07/15/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:57	1

Client Sample ID: ERM-11S-20200714-01
Lab Sample ID: 480-172344-16
Date Collected: 07/14/20 11:25
Matrix: Water
Date Received: 07/15/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:59	1

Client Sample ID: ERM-5S-20200714-01
Lab Sample ID: 480-172344-17
Date Collected: 07/14/20 11:25
Matrix: Water
Date Received: 07/15/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 22:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 17:00	1

Client Sample ID: ERM-5MA-20200714-01
Lab Sample ID: 480-172427-1
Date Collected: 07/14/20 14:25
Matrix: Water
Date Received: 07/16/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/17/20 11:33	07/17/20 22:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/20/20 13:00	07/20/20 17:05	1

Client Sample ID: ERB-002-20200714-01

Date Collected: 07/14/20 12:00
Date Received: 07/16/20 08:00

Lab Sample ID: 480-172427-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorooctanoic acid (PFOA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		07/17/20 11:52	07/17/20 22:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C2 PFDoA	*78*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C2 PFHxA	*98*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C2 PFUnA	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C3 PFBS	*96*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C4 PFHpA	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C4 PFOA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C4 PFOS	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
13C5 PFNA	*101*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*
18O2 PFHxS	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 22:32*	*1*

Surrogate Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-172344-3	TB-20200713-01	100	100	99	102
480-172344-4	MW-102-5-10-20200713-01	100	98	98	100
480-172344-5	MW-103-8-13-20200713-01	101	97	99	99
480-172344-6	MW-103-13-18-20200713-01	99	98	99	101
480-172344-7	MW-104-5-10-20200713-01	99	98	99	100
480-172344-8	MW-104-10-15-20200713-01	102	99	101	102
480-172344-9	MW-102-10-15-20200713-01	100	98	101	100
480-172344-10	DUP-001-20200713-01	99	101	100	100
480-172344-11	MW-101-10-15-20200713-01	99	102	100	102
480-172344-12	MW-101-5-10-20200713-01	99	100	100	100
LCS 480-541277/7	Lab Control Sample	99	104	101	101
LCS 480-541461/5	Lab Control Sample	100	102	101	100
MB 480-541277/9	Method Blank	98	99	101	99
MB 480-541461/7	Method Blank	101	100	99	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDA (50-150)	PFDoA (50-150)	PFHxA (50-150)	PFTDA (50-150)	PFUnA (50-150)	C3PFBS (50-150)	C4PFHA (50-150)	PFOA (50-150)
480-172344-1	FRB-001-20200713-01	98	82	97	70	88	88	94	91
480-172344-2	ERB-001-20200713-01	98	76	96	67	84	94	96	94
480-172344-4	MW-102-5-10-20200713-01	86	77	99	73	77	95	92	92
480-172344-5	MW-103-8-13-20200713-01	92	86	94	79	88	88	93	96
480-172344-6	MW-103-13-18-20200713-01	94	88	103	75	90	95	98	100
480-172344-7	MW-104-5-10-20200713-01	92	85	97	75	88	98	95	95
480-172344-8	MW-104-10-15-20200713-01	86	70	93	71	76	89	88	92
480-172344-9	MW-102-10-15-20200713-01	88	78	99	75	75	90	99	92
480-172344-10	DUP-001-20200713-01	89	90	104	79	91	98	95	97
480-172344-11	MW-101-10-15-20200713-01	88	79	93	69	74	94	87	90
480-172344-12	MW-101-5-10-20200713-01	87	79	97	76	84	94	94	96
480-172427-2	ERB-002-20200714-01	95	78	98	77	91	96	99	94
LCS 200-156946/2-A	Lab Control Sample	101	75	104	72	97	102	104	101
MB 200-156946/1-A	Method Blank	99	86	105	74	86	99	92	91

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	PFOS (50-150)	PFNA (50-150)	PFHxS (50-150)
480-172344-1	FRB-001-20200713-01	91	97	91
480-172344-2	ERB-001-20200713-01	90	93	92
480-172344-4	MW-102-5-10-20200713-01	84	94	90
480-172344-5	MW-103-8-13-20200713-01	88	91	94
480-172344-6	MW-103-13-18-20200713-01	89	96	99
480-172344-7	MW-104-5-10-20200713-01	84	92	99
480-172344-8	MW-104-10-15-20200713-01	81	87	91
480-172344-9	MW-102-10-15-20200713-01	83	94	93
480-172344-10	DUP-001-20200713-01	83	94	95
480-172344-11	MW-101-10-15-20200713-01	76	89	91
480-172344-12	MW-101-5-10-20200713-01	80	93	94
480-172427-2	ERB-002-20200714-01	92	101	94
LCS 200-156946/2-A	Lab Control Sample	95	95	102
MB 200-156946/1-A	Method Blank	93	94	95

Surrogate Legend

PFDA = 13C2 PFDA
PFDoA = 13C2 PFDoA
PFHxA = 13C2 PFHxA
PFTDA = 13C2 PFTeDA
PFUnA = 13C2 PFUnA
C3PFBS = 13C3 PFBS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFHxS = 18O2 PFHxS

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-541277/9
Matrix: Water
Analysis Batch: 541277

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/21/20 12:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/21/20 12:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/21/20 12:21	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/21/20 12:21	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/21/20 12:21	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/21/20 12:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/21/20 12:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/21/20 12:21	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/21/20 12:21	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/21/20 12:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/21/20 12:21	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/21/20 12:21	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/21/20 12:21	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/21/20 12:21	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/21/20 12:21	1
2-Hexanone	ND		5.0	1.2	ug/L			07/21/20 12:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/21/20 12:21	1
Acetone	ND		10	3.0	ug/L			07/21/20 12:21	1
Benzene	ND		1.0	0.41	ug/L			07/21/20 12:21	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/21/20 12:21	1
Bromoform	ND		1.0	0.26	ug/L			07/21/20 12:21	1
Bromomethane	ND		1.0	0.69	ug/L			07/21/20 12:21	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/21/20 12:21	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/21/20 12:21	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/21/20 12:21	1
Chloroethane	ND		1.0	0.32	ug/L			07/21/20 12:21	1
Chloroform	ND		1.0	0.34	ug/L			07/21/20 12:21	1
Chloromethane	ND		1.0	0.35	ug/L			07/21/20 12:21	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/21/20 12:21	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/21/20 12:21	1
Cyclohexane	ND		1.0	0.18	ug/L			07/21/20 12:21	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/21/20 12:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/21/20 12:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/21/20 12:21	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/21/20 12:21	1
Methyl acetate	ND		2.5	1.3	ug/L			07/21/20 12:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/21/20 12:21	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/21/20 12:21	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/21/20 12:21	1
Styrene	ND		1.0	0.73	ug/L			07/21/20 12:21	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/21/20 12:21	1
Toluene	ND		1.0	0.51	ug/L			07/21/20 12:21	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/21/20 12:21	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/21/20 12:21	1
Trichloroethene	ND		1.0	0.46	ug/L			07/21/20 12:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/21/20 12:21	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/21/20 12:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/21/20 12:21	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-541277/9
Matrix: Water
Analysis Batch: 541277

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*07/21/20 12:21*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*07/21/20 12:21*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*07/21/20 12:21*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/21/20 12:21*	*1*

Lab Sample ID: LCS 480-541277/7
Matrix: Water
Analysis Batch: 541277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.7		ug/L		95	61 - 148
1,1,2-Trichloroethane	25.0	24.9		ug/L		99	76 - 122
1,1-Dichloroethane	25.0	24.5		ug/L		98	77 - 120
1,1-Dichloroethene	25.0	23.9		ug/L		96	66 - 127
1,2,4-Trichlorobenzene	25.0	25.2		ug/L		101	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.1		ug/L		97	56 - 134
1,2-Dibromoethane	25.0	25.6		ug/L		102	77 - 120
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	80 - 124
1,2-Dichloroethane	25.0	24.3		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	24.8		ug/L		99	76 - 120
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 120
2-Butanone (MEK)	125	116		ug/L		93	57 - 140
2-Hexanone	125	117		ug/L		93	65 - 127
4-Methyl-2-pentanone (MIBK)	125	115		ug/L		92	71 - 125
Acetone	125	102		ug/L		82	56 - 142
Benzene	25.0	24.5		ug/L		98	71 - 124
Bromodichloromethane	25.0	26.0		ug/L		104	80 - 122
Bromoform	25.0	27.3		ug/L		109	61 - 132
Bromomethane	25.0	23.3		ug/L		93	55 - 144
Carbon disulfide	25.0	25.0		ug/L		100	59 - 134
Carbon tetrachloride	25.0	24.8		ug/L		99	72 - 134
Chlorobenzene	25.0	24.9		ug/L		100	80 - 120
Chloroethane	25.0	21.9		ug/L		87	69 - 136
Chloroform	25.0	23.1		ug/L		93	73 - 127
Chloromethane	25.0	22.4		ug/L		90	68 - 124
cis-1,2-Dichloroethene	25.0	24.9		ug/L		100	74 - 124
cis-1,3-Dichloropropene	25.0	26.1		ug/L		104	74 - 124
Cyclohexane	25.0	22.8		ug/L		91	59 - 135
Dibromochloromethane	25.0	27.3		ug/L		109	75 - 125
Dichlorodifluoromethane	25.0	22.3		ug/L		89	59 - 135
Ethylbenzene	25.0	25.2		ug/L		101	77 - 123
Isopropylbenzene	25.0	24.5		ug/L		98	77 - 122
Methyl acetate	50.0	43.2		ug/L		86	74 - 133
Methyl tert-butyl ether	25.0	24.9		ug/L		100	77 - 120
Methylcyclohexane	25.0	23.2		ug/L		93	68 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-541277/7
Matrix: Water
Analysis Batch: 541277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	25.0	23.6		ug/L		94	75 - 124
Styrene	25.0	25.3		ug/L		101	80 - 120
Tetrachloroethene	25.0	24.7		ug/L		99	74 - 122
Toluene	25.0	25.0		ug/L		100	80 - 122
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	73 - 127
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	80 - 120
Trichloroethene	25.0	25.0		ug/L		100	74 - 123
Trichlorofluoromethane	25.0	21.5		ug/L		86	62 - 150
Vinyl chloride	25.0	22.1		ug/L		88	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 480-541461/7
Matrix: Water
Analysis Batch: 541461

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/22/20 10:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/22/20 10:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/22/20 10:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/22/20 10:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/22/20 10:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/22/20 10:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/22/20 10:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/22/20 10:37	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/22/20 10:37	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/22/20 10:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/22/20 10:37	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/22/20 10:37	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/22/20 10:37	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/22/20 10:37	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/22/20 10:37	1
2-Hexanone	ND		5.0	1.2	ug/L			07/22/20 10:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/22/20 10:37	1
Acetone	ND		10	3.0	ug/L			07/22/20 10:37	1
Benzene	ND		1.0	0.41	ug/L			07/22/20 10:37	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/22/20 10:37	1
Bromoform	ND		1.0	0.26	ug/L			07/22/20 10:37	1
Bromomethane	ND		1.0	0.69	ug/L			07/22/20 10:37	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/22/20 10:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/22/20 10:37	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/22/20 10:37	1
Chloroethane	ND		1.0	0.32	ug/L			07/22/20 10:37	1
Chloroform	ND		1.0	0.34	ug/L			07/22/20 10:37	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-541461/7
Matrix: Water
Analysis Batch: 541461

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.35	ug/L			07/22/20 10:37	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/22/20 10:37	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/22/20 10:37	1
Cyclohexane	ND		1.0	0.18	ug/L			07/22/20 10:37	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/22/20 10:37	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/22/20 10:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/22/20 10:37	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/22/20 10:37	1
Methyl acetate	ND		2.5	1.3	ug/L			07/22/20 10:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/22/20 10:37	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/22/20 10:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/22/20 10:37	1
Styrene	ND		1.0	0.73	ug/L			07/22/20 10:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/22/20 10:37	1
Toluene	ND		1.0	0.51	ug/L			07/22/20 10:37	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/22/20 10:37	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/22/20 10:37	1
Trichloroethene	ND		1.0	0.46	ug/L			07/22/20 10:37	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/22/20 10:37	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/22/20 10:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/22/20 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*07/22/20 10:37*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*07/22/20 10:37*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*07/22/20 10:37*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/22/20 10:37*	*1*

Lab Sample ID: LCS 480-541461/5
Matrix: Water
Analysis Batch: 541461

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L		102	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.4		ug/L		97	61 - 148
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	76 - 122
1,1-Dichloroethane	25.0	25.6		ug/L		102	77 - 120
1,1-Dichloroethene	25.0	24.5		ug/L		98	66 - 127
1,2,4-Trichlorobenzene	25.0	24.7		ug/L		99	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.9		ug/L		100	56 - 134
1,2-Dibromoethane	25.0	26.4		ug/L		106	77 - 120
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	25.5		ug/L		102	76 - 120
1,3-Dichlorobenzene	25.0	25.4		ug/L		102	77 - 120
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	80 - 120
2-Butanone (MEK)	125	123		ug/L		99	57 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-541461/5
Matrix: Water
Analysis Batch: 541461

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	125	126		ug/L		101	65 - 127
4-Methyl-2-pentanone (MIBK)	125	123		ug/L		99	71 - 125
Acetone	125	113		ug/L		90	56 - 142
Benzene	25.0	25.2		ug/L		101	71 - 124
Bromodichloromethane	25.0	26.3		ug/L		105	80 - 122
Bromoform	25.0	27.5		ug/L		110	61 - 132
Bromomethane	25.0	25.8		ug/L		103	55 - 144
Carbon disulfide	25.0	25.7		ug/L		103	59 - 134
Carbon tetrachloride	25.0	25.0		ug/L		100	72 - 134
Chlorobenzene	25.0	25.7		ug/L		103	80 - 120
Chloroethane	25.0	22.6		ug/L		91	69 - 136
Chloroform	25.0	24.0		ug/L		96	73 - 127
Chloromethane	25.0	22.6		ug/L		90	68 - 124
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	74 - 124
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124
Cyclohexane	25.0	23.0		ug/L		92	59 - 135
Dibromochloromethane	25.0	27.9		ug/L		112	75 - 125
Dichlorodifluoromethane	25.0	21.0		ug/L		84	59 - 135
Ethylbenzene	25.0	25.7		ug/L		103	77 - 123
Isopropylbenzene	25.0	25.7		ug/L		103	77 - 122
Methyl acetate	50.0	49.9		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	25.6		ug/L		102	77 - 120
Methylcyclohexane	25.0	23.5		ug/L		94	68 - 134
Methylene Chloride	25.0	23.9		ug/L		96	75 - 124
Styrene	25.0	26.1		ug/L		104	80 - 120
Tetrachloroethene	25.0	25.1		ug/L		100	74 - 122
Toluene	25.0	25.4		ug/L		102	80 - 122
trans-1,2-Dichloroethene	25.0	25.1		ug/L		101	73 - 127
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	80 - 120
Trichloroethene	25.0	25.9		ug/L		103	74 - 123
Trichlorofluoromethane	25.0	22.3		ug/L		89	62 - 150
Vinyl chloride	25.0	22.6		ug/L		90	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-156946/1-A
Matrix: Water
Analysis Batch: 156969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 156946

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorodecanoic acid (PFDA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-156946/1-A
Matrix: Water
Analysis Batch: 156969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 156946

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorononanoic acid (PFNA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorooctanoic acid (PFOA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	2.0	ng/L		07/17/20 11:52	07/17/20 19:30	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C2 PFDoA	*86*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C2 PFHxA	*105*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C2 PFTeDA	*74*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C2 PFUnA	*86*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C3 PFBS	*99*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C4 PFHpA	*92*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C4 PFOA	*91*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C4 PFOS	*93*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
13C5 PFNA	*94*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*
18O2 PFHxS	*95*		*50 - 150*	*07/17/20 11:52*	*07/17/20 19:30*	*1*

Lab Sample ID: LCS 200-156946/2-A
Matrix: Water
Analysis Batch: 156969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 156946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanesulfonic acid (PFBS)	35.4	39.9		ng/L		113	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	42.8		ng/L		107	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	47.8		ng/L		120	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	40.2		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.1		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	41.3		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.0		ng/L		100	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	40.4		ng/L		109	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	44.8		ng/L		112	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	44.9		ng/L		112	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	46.6		ng/L		117	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	39.3		ng/L		98	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFDA	*101*		*50 - 150*
13C2 PFDoA	*75*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-156946/2-A
Matrix: Water
Analysis Batch: 156969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 156946

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFHxA	*104*		*50 - 150*
13C2 PFTeDA	*72*		*50 - 150*
13C2 PFUnA	*97*		*50 - 150*
13C3 PFBS	*102*		*50 - 150*
13C4 PFHpA	*104*		*50 - 150*
13C4 PFOA	*101*		*50 - 150*
13C4 PFOS	*95*		*50 - 150*
13C5 PFNA	*95*		*50 - 150*
18O2 PFHxS	*102*		*50 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-540577/1-A
Matrix: Water
Analysis Batch: 540870

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/16/20 10:08	07/16/20 21:14	1

Lab Sample ID: LCS 480-540577/2-A
Matrix: Water
Analysis Batch: 540870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.200	0.198		mg/L		99	80 - 120

Lab Sample ID: 480-172344-4 MS
Matrix: Water
Analysis Batch: 540870

Client Sample ID: MW-102-5-10-20200713-01
Prep Type: Total/NA
Prep Batch: 540577

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		0.200	0.207		mg/L		104	75 - 125

Lab Sample ID: 480-172344-4 MSD
Matrix: Water
Analysis Batch: 540870

Client Sample ID: MW-102-5-10-20200713-01
Prep Type: Total/NA
Prep Batch: 540577

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		0.200	0.205		mg/L		103	75 - 125	1	20

Lab Sample ID: MB 480-540833/1-A
Matrix: Water
Analysis Batch: 541109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		07/17/20 11:33	07/17/20 21:19	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-540833/2-A
Matrix: Water
Analysis Batch: 541109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540833

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			0.200	0.203		mg/L		101	80 - 120		

Lab Sample ID: LCSD 480-540833/24-A
Matrix: Water
Analysis Batch: 541109

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 540833

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			0.200	0.203		mg/L		102	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-540920/1-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540920

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 15:33	1

Lab Sample ID: LCS 480-540920/2-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540920

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00705		mg/L		106	80 - 120		

Lab Sample ID: 480-172344-7 MS
Matrix: Water
Analysis Batch: 540981

Client Sample ID: MW-104-5-10-20200713-01
Prep Type: Total/NA
Prep Batch: 540920

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00667	0.00707		mg/L		106	80 - 120		

Lab Sample ID: 480-172344-7 MSD
Matrix: Water
Analysis Batch: 540981

Client Sample ID: MW-104-5-10-20200713-01
Prep Type: Total/NA
Prep Batch: 540920

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00710		mg/L		106	80 - 120	0	20

Lab Sample ID: MB 480-540922/1-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:17	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-540922/2-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00707		mg/L		106	80 - 120		

Lab Sample ID: LCSD 480-540922/3-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 540922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.00667	0.00693		mg/L		104	80 - 120	2	20

Lab Sample ID: MB 480-541171/1-A
Matrix: Water
Analysis Batch: 541236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 541171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/20/20 13:00	07/20/20 16:59	1

Lab Sample ID: LCS 480-541171/2-A
Matrix: Water
Analysis Batch: 541236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 541171

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00635		mg/L		95	80 - 120		

QC Association Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

GC/MS VOA

Analysis Batch: 541277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-10	DUP-001-20200713-01	Total/NA	Water	8260C	
480-172344-11	MW-101-10-15-20200713-01	Total/NA	Water	8260C	
480-172344-12	MW-101-5-10-20200713-01	Total/NA	Water	8260C	
MB 480-541277/9	Method Blank	Total/NA	Water	8260C	
LCS 480-541277/7	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 541461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-3	TB-20200713-01	Total/NA	Water	8260C	
480-172344-4	MW-102-5-10-20200713-01	Total/NA	Water	8260C	
480-172344-5	MW-103-8-13-20200713-01	Total/NA	Water	8260C	
480-172344-6	MW-103-13-18-20200713-01	Total/NA	Water	8260C	
480-172344-7	MW-104-5-10-20200713-01	Total/NA	Water	8260C	
480-172344-8	MW-104-10-15-20200713-01	Total/NA	Water	8260C	
480-172344-9	MW-102-10-15-20200713-01	Total/NA	Water	8260C	
MB 480-541461/7	Method Blank	Total/NA	Water	8260C	
LCS 480-541461/5	Lab Control Sample	Total/NA	Water	8260C	

LCMS

Prep Batch: 156946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-1	FRB-001-20200713-01	Total/NA	Water	3535	
480-172344-2	ERB-001-20200713-01	Total/NA	Water	3535	
480-172344-4	MW-102-5-10-20200713-01	Total/NA	Water	3535	
480-172344-5	MW-103-8-13-20200713-01	Total/NA	Water	3535	
480-172344-6	MW-103-13-18-20200713-01	Total/NA	Water	3535	
480-172344-7	MW-104-5-10-20200713-01	Total/NA	Water	3535	
480-172344-8	MW-104-10-15-20200713-01	Total/NA	Water	3535	
480-172344-9	MW-102-10-15-20200713-01	Total/NA	Water	3535	
480-172344-10	DUP-001-20200713-01	Total/NA	Water	3535	
480-172344-11	MW-101-10-15-20200713-01	Total/NA	Water	3535	
480-172344-12	MW-101-5-10-20200713-01	Total/NA	Water	3535	
480-172427-2	ERB-002-20200714-01	Total/NA	Water	3535	
MB 200-156946/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-156946/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 156969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-1	FRB-001-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-2	ERB-001-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-4	MW-102-5-10-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-5	MW-103-8-13-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-6	MW-103-13-18-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-7	MW-104-5-10-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-8	MW-104-10-15-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-9	MW-102-10-15-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-10	DUP-001-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-11	MW-101-10-15-20200713-01	Total/NA	Water	537 (modified)	156946
480-172344-12	MW-101-5-10-20200713-01	Total/NA	Water	537 (modified)	156946
480-172427-2	ERB-002-20200714-01	Total/NA	Water	537 (modified)	156946

LCMS (Continued)

Analysis Batch: 156969 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 200-156946/1-A	Method Blank	Total/NA	Water	537 (modified)	156946
LCS 200-156946/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	156946

Metals

Prep Batch: 540577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-4	MW-102-5-10-20200713-01	Total/NA	Water	3005A	
480-172344-5	MW-103-8-13-20200713-01	Total/NA	Water	3005A	
480-172344-6	MW-103-13-18-20200713-01	Total/NA	Water	3005A	
480-172344-7	MW-104-5-10-20200713-01	Total/NA	Water	3005A	
480-172344-8	MW-104-10-15-20200713-01	Total/NA	Water	3005A	
480-172344-9	MW-102-10-15-20200713-01	Total/NA	Water	3005A	
480-172344-10	DUP-001-20200713-01	Total/NA	Water	3005A	
480-172344-11	MW-101-10-15-20200713-01	Total/NA	Water	3005A	
480-172344-12	MW-101-5-10-20200713-01	Total/NA	Water	3005A	
480-172344-13	ERM-8-20200714-01	Total/NA	Water	3005A	
480-172344-14	ERM-6-20200714-01	Total/NA	Water	3005A	
480-172344-15	DUP-002-20200714-01	Total/NA	Water	3005A	
480-172344-16	ERM-11S-20200714-01	Total/NA	Water	3005A	
480-172344-17	ERM-5S-20200714-01	Total/NA	Water	3005A	
MB 480-540577/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-540577/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-172344-4 MS	MW-102-5-10-20200713-01	Total/NA	Water	3005A	
480-172344-4 MSD	MW-102-5-10-20200713-01	Total/NA	Water	3005A	

Prep Batch: 540833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172427-1	ERM-5MA-20200714-01	Total/NA	Water	3005A	
MB 480-540833/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-540833/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-540833/24-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Analysis Batch: 540870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-4	MW-102-5-10-20200713-01	Total/NA	Water	6010C	540577
480-172344-5	MW-103-8-13-20200713-01	Total/NA	Water	6010C	540577
480-172344-6	MW-103-13-18-20200713-01	Total/NA	Water	6010C	540577
480-172344-7	MW-104-5-10-20200713-01	Total/NA	Water	6010C	540577
480-172344-8	MW-104-10-15-20200713-01	Total/NA	Water	6010C	540577
480-172344-9	MW-102-10-15-20200713-01	Total/NA	Water	6010C	540577
480-172344-10	DUP-001-20200713-01	Total/NA	Water	6010C	540577
480-172344-11	MW-101-10-15-20200713-01	Total/NA	Water	6010C	540577
480-172344-12	MW-101-5-10-20200713-01	Total/NA	Water	6010C	540577
480-172344-13	ERM-8-20200714-01	Total/NA	Water	6010C	540577
480-172344-14	ERM-6-20200714-01	Total/NA	Water	6010C	540577
480-172344-15	DUP-002-20200714-01	Total/NA	Water	6010C	540577
480-172344-16	ERM-11S-20200714-01	Total/NA	Water	6010C	540577
480-172344-17	ERM-5S-20200714-01	Total/NA	Water	6010C	540577
MB 480-540577/1-A	Method Blank	Total/NA	Water	6010C	540577
LCS 480-540577/2-A	Lab Control Sample	Total/NA	Water	6010C	540577

Metals (Continued)

Analysis Batch: 540870 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-4 MS	MW-102-5-10-20200713-01	Total/NA	Water	6010C	540577
480-172344-4 MSD	MW-102-5-10-20200713-01	Total/NA	Water	6010C	540577

Prep Batch: 540920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-4	MW-102-5-10-20200713-01	Total/NA	Water	7470A	
480-172344-5	MW-103-8-13-20200713-01	Total/NA	Water	7470A	
480-172344-6	MW-103-13-18-20200713-01	Total/NA	Water	7470A	
480-172344-7	MW-104-5-10-20200713-01	Total/NA	Water	7470A	
480-172344-8	MW-104-10-15-20200713-01	Total/NA	Water	7470A	
480-172344-9	MW-102-10-15-20200713-01	Total/NA	Water	7470A	
480-172344-10	DUP-001-20200713-01	Total/NA	Water	7470A	
480-172344-11	MW-101-10-15-20200713-01	Total/NA	Water	7470A	
480-172344-12	MW-101-5-10-20200713-01	Total/NA	Water	7470A	
480-172344-13	ERM-8-20200714-01	Total/NA	Water	7470A	
MB 480-540920/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-540920/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-172344-7 MS	MW-104-5-10-20200713-01	Total/NA	Water	7470A	
480-172344-7 MSD	MW-104-5-10-20200713-01	Total/NA	Water	7470A	

Prep Batch: 540922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-14	ERM-6-20200714-01	Total/NA	Water	7470A	
480-172344-15	DUP-002-20200714-01	Total/NA	Water	7470A	
480-172344-16	ERM-11S-20200714-01	Total/NA	Water	7470A	
480-172344-17	ERM-5S-20200714-01	Total/NA	Water	7470A	
MB 480-540922/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-540922/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 480-540922/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Analysis Batch: 540981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-4	MW-102-5-10-20200713-01	Total/NA	Water	7470A	540920
480-172344-5	MW-103-8-13-20200713-01	Total/NA	Water	7470A	540920
480-172344-6	MW-103-13-18-20200713-01	Total/NA	Water	7470A	540920
480-172344-7	MW-104-5-10-20200713-01	Total/NA	Water	7470A	540920
480-172344-8	MW-104-10-15-20200713-01	Total/NA	Water	7470A	540920
480-172344-9	MW-102-10-15-20200713-01	Total/NA	Water	7470A	540920
480-172344-10	DUP-001-20200713-01	Total/NA	Water	7470A	540920
480-172344-11	MW-101-10-15-20200713-01	Total/NA	Water	7470A	540920
480-172344-12	MW-101-5-10-20200713-01	Total/NA	Water	7470A	540920
480-172344-13	ERM-8-20200714-01	Total/NA	Water	7470A	540920
480-172344-14	ERM-6-20200714-01	Total/NA	Water	7470A	540922
480-172344-15	DUP-002-20200714-01	Total/NA	Water	7470A	540922
480-172344-16	ERM-11S-20200714-01	Total/NA	Water	7470A	540922
480-172344-17	ERM-5S-20200714-01	Total/NA	Water	7470A	540922
MB 480-540920/1-A	Method Blank	Total/NA	Water	7470A	540920
MB 480-540922/1-A	Method Blank	Total/NA	Water	7470A	540922
LCS 480-540920/2-A	Lab Control Sample	Total/NA	Water	7470A	540920
LCS 480-540922/2-A	Lab Control Sample	Total/NA	Water	7470A	540922
LCSD 480-540922/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	540922

Metals (Continued)

Analysis Batch: 540981 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172344-7 MS	MW-104-5-10-20200713-01	Total/NA	Water	7470A	540920
480-172344-7 MSD	MW-104-5-10-20200713-01	Total/NA	Water	7470A	540920

Analysis Batch: 541109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172427-1	ERM-5MA-20200714-01	Total/NA	Water	6010C	540833
MB 480-540833/1-A	Method Blank	Total/NA	Water	6010C	540833
LCS 480-540833/2-A	Lab Control Sample	Total/NA	Water	6010C	540833
LCSD 480-540833/24-A	Lab Control Sample Dup	Total/NA	Water	6010C	540833

Prep Batch: 541171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172427-1	ERM-5MA-20200714-01	Total/NA	Water	7470A	
MB 480-541171/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-541171/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 541236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172427-1	ERM-5MA-20200714-01	Total/NA	Water	7470A	541171
MB 480-541171/1-A	Method Blank	Total/NA	Water	7470A	541171
LCS 480-541171/2-A	Lab Control Sample	Total/NA	Water	7470A	541171

Lab Chronicle

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Client Sample ID: FRB-001-20200713-01
Date Collected: 07/13/20 12:30
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 19:47	JM1	TAL BUR

Client Sample ID: ERB-001-20200713-01
Date Collected: 07/13/20 12:30
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 19:55	JM1	TAL BUR

Client Sample ID: TB-20200713-01
Date Collected: 07/13/20 00:00
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541461	07/22/20 14:18	CRL	TAL BUF

Client Sample ID: MW-102-5-10-20200713-01
Date Collected: 07/13/20 14:10
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541461	07/22/20 14:42	CRL	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 20:03	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 21:22	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 15:54	BMB	TAL BUF

Client Sample ID: MW-103-8-13-20200713-01
Date Collected: 07/13/20 14:20
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541461	07/22/20 15:04	CRL	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 20:11	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 21:52	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 15:56	BMB	TAL BUF

Lab Chronicle

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Client Sample ID: MW-103-13-18-20200713-01

Lab Sample ID: 480-172344-6

Date Collected: 07/13/20 15:15
Matrix: Water
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541461	07/22/20 15:27	CRL	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 20:20	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 21:56	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 15:57	BMB	TAL BUF

Client Sample ID: MW-104-5-10-20200713-01

Lab Sample ID: 480-172344-7

Date Collected: 07/13/20 16:50
Matrix: Water
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541461	07/22/20 15:50	CRL	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 20:28	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 21:59	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 15:59	BMB	TAL BUF

Client Sample ID: MW-104-10-15-20200713-01

Lab Sample ID: 480-172344-8

Date Collected: 07/13/20 17:40
Matrix: Water
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541461	07/22/20 16:13	CRL	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 20:36	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:03	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:05	BMB	TAL BUF

Client Sample ID: MW-102-10-15-20200713-01

Lab Sample ID: 480-172344-9

Date Collected: 07/13/20 15:00
Matrix: Water
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541461	07/22/20 11:37	CRL	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 20:45	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:07	LMH	TAL BUF

Lab Chronicle

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Client Sample ID: MW-102-10-15-20200713-01

Lab Sample ID: 480-172344-9
Matrix: Water
Date Collected: 07/13/20 15:00
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:10	BMB	TAL BUF

Client Sample ID: DUP-001-20200713-01

Lab Sample ID: 480-172344-10
Matrix: Water
Date Collected: 07/13/20 12:00
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541277	07/21/20 15:39	OMI	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 20:53	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:11	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:11	BMB	TAL BUF

Client Sample ID: MW-101-10-15-20200713-01

Lab Sample ID: 480-172344-11
Matrix: Water
Date Collected: 07/13/20 18:05
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541277	07/21/20 16:03	OMI	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 21:01	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:15	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:13	BMB	TAL BUF

Client Sample ID: MW-101-5-10-20200713-01

Lab Sample ID: 480-172344-12
Matrix: Water
Date Collected: 07/13/20 17:00
Date Received: 07/15/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	541277	07/21/20 16:26	OMI	TAL BUF
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 21:18	JM1	TAL BUR
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:30	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:14	BMB	TAL BUF

Lab Chronicle

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Client Sample ID: ERM-8-20200714-01
Date Collected: 07/14/20 10:00
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:34	LMH	TAL BUF
Total/NA	Prep	7470A			540920	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:16	BMB	TAL BUF

Client Sample ID: ERM-6-20200714-01
Date Collected: 07/14/20 10:00
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:38	LMH	TAL BUF
Total/NA	Prep	7470A			540922	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:56	BMB	TAL BUF

Client Sample ID: DUP-002-20200714-01
Date Collected: 07/14/20 12:00
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:42	LMH	TAL BUF
Total/NA	Prep	7470A			540922	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:57	BMB	TAL BUF

Client Sample ID: ERM-11S-20200714-01
Date Collected: 07/14/20 11:25
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:46	LMH	TAL BUF
Total/NA	Prep	7470A			540922	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 16:59	BMB	TAL BUF

Client Sample ID: ERM-5S-20200714-01
Date Collected: 07/14/20 11:25
Date Received: 07/15/20 08:00

Lab Sample ID: 480-172344-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			540577	07/16/20 10:08	ADM	TAL BUF
Total/NA	Analysis	6010C		1	540870	07/16/20 22:49	LMH	TAL BUF
Total/NA	Prep	7470A			540922	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	7470A		1	540981	07/17/20 17:00	BMB	TAL BUF

Lab Chronicle

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Client Sample ID: ERM-5MA-20200714-01

Date Collected: 07/14/20 14:25
Date Received: 07/16/20 08:00

Lab Sample ID: 480-172427-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			540833	07/17/20 11:33	ADM	TAL BUF
Total/NA	Analysis	6010C		1	541109	07/17/20 22:16	LMH	TAL BUF
Total/NA	Prep	7470A			541171	07/20/20 13:00	BMB	TAL BUF
Total/NA	Analysis	7470A		1	541236	07/20/20 17:05	BMB	TAL BUF

Client Sample ID: ERB-002-20200714-01

Date Collected: 07/14/20 12:00
Date Received: 07/16/20 08:00

Lab Sample ID: 480-172427-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			156946	07/17/20 11:52	ND	TAL BUR
Total/NA	Analysis	537 (modified)		1	156969	07/17/20 22:32	JM1	TAL BUR

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Laboratory: Eurofins TestAmerica, Buffalo

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	88-0686	07-07-21
California	State	2931	04-01-20 *
Connecticut	State	PH-0568	09-30-20
Florida	NELAP	E87672	07-01-21
Georgia	State	10026 (NY)	04-01-21
Georgia	State Program	N/A	03-31-09 *
Georgia (DW)	State	956	04-01-21
Illinois	NELAP	200003	09-30-20
Iowa	State	374	02-28-21
Kansas	NELAP	E-10187	02-01-21
Kentucky (DW)	State	90029	12-31-20
Kentucky (UST)	State	30	04-01-21
Kentucky (WW)	State	KY90029	12-31-20
Louisiana	NELAP	02031	07-01-21
Maine	State	NY00044	12-04-20
Maryland	State	294	04-01-21
Massachusetts	State	M-NY044	07-01-21
Michigan	State	9937	03-31-20 *
Michigan	State Program	9937	04-01-09 *
Minnesota	NELAP	1524384	12-31-20
New Hampshire	NELAP	2337	11-18-20
New Jersey	NELAP	NY455	08-01-20
New York	NELAP	10026	04-02-21
North Dakota	State	R-176	04-01-21
Oklahoma	State	9421	09-01-20
Oregon	NELAP	NY200003	06-11-21
Pennsylvania	NELAP	68-00281	07-31-20
Rhode Island	State	LAO00328	12-30-20
Tennessee	State	02970	04-01-21
Texas	NELAP	T104704412-18-10	08-01-20
USDA	US Federal Programs	P330-18-00039	02-06-21
Virginia	NELAP	460185	09-14-20
Washington	State	C784	02-11-21
Wisconsin	State	998310390	08-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-20
New Hampshire	NELAP	2006	12-18-20
New Jersey	NELAP	VT972	06-30-21
New York	NELAP	10391	04-01-21
Pennsylvania	NELAP	68-00489	04-30-21
Rhode Island	State	LAO00298	12-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00272	08-09-20
Vermont	State	VT4000	12-31-20
Virginia	NELAP	460209	12-14-20
Wisconsin	State	399133350	08-31-21

Method Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
5030C	Purge and Trap	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL BUF

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:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 480-172344-1
SDG: 480-172344-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-172344-1	FRB-001-20200713-01	Water	07/13/20 12:30	07/15/20 08:00	
480-172344-2	ERB-001-20200713-01	Water	07/13/20 12:30	07/15/20 08:00	
480-172344-3	TB-20200713-01	Water	07/13/20 00:00	07/15/20 08:00	
480-172344-4	MW-102-5-10-20200713-01	Water	07/13/20 14:10	07/15/20 08:00	
480-172344-5	MW-103-8-13-20200713-01	Water	07/13/20 14:20	07/15/20 08:00	
480-172344-6	MW-103-13-18-20200713-01	Water	07/13/20 15:15	07/15/20 08:00	
480-172344-7	MW-104-5-10-20200713-01	Water	07/13/20 16:50	07/15/20 08:00	
480-172344-8	MW-104-10-15-20200713-01	Water	07/13/20 17:40	07/15/20 08:00	
480-172344-9	MW-102-10-15-20200713-01	Water	07/13/20 15:00	07/15/20 08:00	
480-172344-10	DUP-001-20200713-01	Water	07/13/20 12:00	07/15/20 08:00	
480-172344-11	MW-101-10-15-20200713-01	Water	07/13/20 18:05	07/15/20 08:00	
480-172344-12	MW-101-5-10-20200713-01	Water	07/13/20 17:00	07/15/20 08:00	
480-172344-13	ERM-8-20200714-01	Water	07/14/20 10:00	07/15/20 08:00	
480-172344-14	ERM-6-20200714-01	Water	07/14/20 10:00	07/15/20 08:00	
480-172344-15	DUP-002-20200714-01	Water	07/14/20 12:00	07/15/20 08:00	
480-172344-16	ERM-11S-20200714-01	Water	07/14/20 11:25	07/15/20 08:00	
480-172344-17	ERM-5S-20200714-01	Water	07/14/20 11:25	07/15/20 08:00	
480-172427-1	ERM-5MA-20200714-01	Water	07/14/20 14:25	07/16/20 08:00	
480-172427-2	ERB-002-20200714-01	Water	07/14/20 12:00	07/16/20 08:00	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: K. Popyack, O. Botting	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-147355-32745.1
Client Contact: Elise LeBlanc	Phone: 315-559-2658	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 5
Company: ERM-Northeast				Job #:
Address: One Beacon Steet 5th Floor	Due Date Requested:			
City: Boston	TAT Requested (days): Standard			
State, Zip: MA, 02108				
Phone:	PO #: Purchase Order Requested			
Email: elise.leblanc@erm.com	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

~~EDDs@ERM.com~~ (KP)

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)	6010C, 7470A	PFC_IDA - PFAS, Vermont 12 Analytes	8260C - TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	A		
FRB-001-20200713-01	7/13/2020	1230	G	Water	N	N		X		2	
ERB-001-20200713-01	↓	1230	G	Water	N	N		X		2	
TB-20200713-01	↓	—	G	Water	N	N			X	2	
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

480-172344 Chain of Custody

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) ~~IV, ASP Cat B deliverables~~ (KP) PDF report

Special Instructions/QC Requirements: (KP) ~~EQuIS~~ Excel EDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kathen Lyle	7/14/2020 1232	ERM	Karl Joachim	7/14/20 1232	Eurofins
Relinquished by: Karl Joachim	Date/Time: 7/14/20 1700	Company Eurofins	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: BDB	Date/Time: 7/15/20 0800	Company TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4 #1

Ver: 01/16/2019

7/27/2020

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: K. Popyack, O Botting	Lab PM: Schove, John R	Carrier Tracking No(s): #225	COC No: 480-147355-32745.2
Client Contact: Elise LeBlanc	Phone: (315) 559-2658	E-Mail: john.schove@testamericainc.com		Page: Page 2 of 5
Company: ERM-Northeast				Job #:
Address: One Beacon Steet 5th Floor	Due Date Requested:			
City: Boston	TAT Requested (days): Standard			
State, Zip: MA, 02108				
Phone:	PO #: Purchase Order Requested			
Email: elise.leblanc@erm.com	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
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, 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)	6010C, 7470A	PFC_IDA - PFAS, Vermont 12 Analytes	8260C - TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	A		
MW-102-5-16-20200713-01	7/13/2020	1410	G	Water	N	N	X	X	X	6	
MW-103-8-13-20200713-01		1420		Water	N	N	X	X	X	6	
MW-103-13-18-20200713-01		1515		Water	N	N	X	X	X	6	
MW-104-5-10-20200713-01		1650		Water	N	N	X	X	X	6	
MW-104-10-15-20200713-01		1740		Water	N	N	X	X	X	6	
MW-102-10-15-20200713-01		1500		Water	N	N	X	X	X	6	
DUP-001-20200713-01		1200		Water	N	N	X	X	X	6	
MW-101-10-15-20200713-01		1805		Water	N	N	X	X	X	6	
MW-101-5-10-20200713-01		1700		Water	N	N	X	X	X	6	
KP ~~MW~~ ERM-8-20200714-01	7/14/2020	1000		Water	N	N	X			1	
ERM-6-20200714-01		1000		Water	N	N	X			1	

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) PDF Report, Excel EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/14/2020 1232	ERM		7/14/20 1232	Eurofins
2		7/14/20 1700	Eurofins			
3					7/15/20 0800	TMB

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.4 #1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Alb #224

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: K. Papyack, O Botting	Lab PM: Schove, John R	Carrier Tracking No(s): #225	COC No: 480-147355-32745.3
Client Contact: Elise LeBlanc	Phone: (315) 559-2658	E-Mail: john.schove@testamericainc.com		Page: Page 3 of 5
Company: ERM-Northeast				Job #:
Address: One Beacon Steet 5th Floor	Due Date Requested:			
City: Boston	TAT Requested (days): Standard			
State, Zip: MA, 02108				
Phone:	PO #: Purchase Order Requested			
Email: elise.leblanc@erm.com	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	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)	6010C, 7470A	PFC_IDA - PFAS, Vermont 12 Analytes	8260C - TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	A		
DUP-002-20200714-01	7/14/2020	1200	G	Water	N	N	X			1	
ERM-11S-20200714-01		1125	G	Water	N	N	X			1	
ERM-5S-20200714-01		1125	G	Water	N	N	X			1	
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

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) PDF Reports, Excel EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	7/14/2020 1232	ERM	Karl Zoeller	7/14/20 1232	Eurofins
2	Karl Zoeller	7/14/20 1700	Eurofins	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by: TBDS	Date/Time: 7/15/20 0800	Company JAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4 #1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: K. Popyack, O. Botting	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-147355-32745.4
Client Contact: Elise LeBlanc	Phone: (315) 559-2658	E-Mail: john.schove@testamericainc.com		Page: Page 4 of 5
Company: ERM-Northeast				Job #: 0529121
Address: One Beacon Steet 5th Floor	Due Date Requested:			
City: Boston	TAT Requested (days): Standard			
State, Zip: MA, 02108				
Phone:	PO #: Purchase Order Requested			
Email: elise.leblanc@erm.com	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
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, 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)	6010C, 7470A	PFC_IDA - PFAS, Vermont 12 Analytes	8260C - TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	A		
ERM-5MA-20200714-01	7/14/2020	1425	G	Water	N	N	X			1	
ERB-002-20200714-01	7/14/2020	1200	G	Water	N	N		X		2	
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

480-172428 Chain of Custody

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) PDF Report, Excel Edd

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	7/15/2020 1240	ERM	[signature]	7/15/20 1240	Eurofins
2	[signature]	7/15/20 1700	Eurofins	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	[signature]	7/16/20 0800	TAB

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.3 #1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: K. Popyack, O Botting	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-147355-32745.2
Client Contact: Elise LeBlanc	Phone: (315) 559-2658	E-Mail: john.schove@testamericainc.com		Page: Page 2 of 5
Company: ERM-Northeast				Job #:
Address: One Beacon Steet 5th Floor	Due Date Requested:			
City: Boston	TAT Requested (days): Standard			
State, Zip: MA, 02108				
Phone:	PO #: Purchase Order Requested			
Email: elise.leblanc@erm.com	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
Site:	SSOW#:			

480-172344 Chain of Custody

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, 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)	6010C, 7470A	PFC_IDA - PFAS, Vermont 12 Analytes	8260C - TCL VOCs	Total Number of containe	Special Instructions/Note:
			Preservation Code:				D	N	A		
MW-102-5-16-20200713-01	7/13/2020	1410	G	Water	N	N	X	X	X	6	
MW-103-8-13-20200713-01		1420		Water	N	N	X	X	X	6	
MW-103-13-18-20200713-01		1515		Water	N	N	X	X	X	6	
MW-104-5-16-20200713-01		1650		Water	N	N	X	X	X	6	
MW-104-10-15-20200713-01		1740		Water	N	N	X	X	X	6	
MW-102-10-15-20200713-01		1500		Water	N	N	X	X	X	6	
DUP-001-20200713-01		1200		Water	N	N	X	X	X	6	
MW-101-10-15-20200713-01		1805		Water	N	N	X	X	X	6	
MW-101-5-10-20200713-01		1700		Water	N	N	X	X	X	6	
KP ERM MW-8-20200714-01	7/14/2020	1000		Water	N	N	X			1	
ERM-6-20200714-01		1000		Water	N	N	X			1	

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) PDF Report, Excel EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/14/2020 1232	ERM		7/14/20 1232	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/14/20 1700	Eurofins		7/15/20 10:35	TAB NBN
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: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Alb #224

Chain of Custody Record

Syracuse #225

eurofins | Environment Testing America

Client Information	Sampler: K. Popyack, O. Botting	Lab PM: Schove, John R	Carrier Tracking No(s): #225	COC No: 480-147355-32745.3
Client Contact: Elise LeBlanc	Phone: (315) 559-2658	E-Mail: john.schove@testamericainc.com		Page: Page 3 of 5
Company: ERM-Northeast				Job #:
Address: One Beacon Steet 5th Floor	Due Date Requested:			
City: Boston	TAT Requested (days): Standard			
State, Zip: MA, 02108				
Phone:	PO #: Purchase Order Requested			
Email: elise.leblanc@erm.com	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	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)	6010C, 7470A	PFC_IDA - PFAS, Vermont 12 Analytes	8260C - TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	A		
DUP-002-20200714-01	7/14/2020	1200	G	Water	N	N	X			1	
ERM-11S-20200714-01	↓	1125	G	Water	N	N	X			1	
ERM-5S-20200714-01	↓	1125	G	Water	N	N	X			1	
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

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) PDF Report, Excel EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/14/2020 1232	ERM		7/14/20 1232	
2		7/14/20 1700			7/15/20 10:35	
3						

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: K. Popyack, O. Botting	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-147355-32745.1
Client Contact: Elise LeBlanc	Phone: 315-559-2658	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 5
Company: ERM-Northeast				Job #:
Address: One Beacon Steet 5th Floor	Due Date Requested:			
City: Boston	TAT Requested (days): Standard			
State, Zip: MA, 02108				
Phone:	PO #: Purchase Order Requested			
Email: elise.leblanc@erm.com	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
Site:	SSOW#:			

~~EDDs ERM.com~~ (KP)

Analysis Requested

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)	6010C, 7470A	PFC_IDA - PFAS, Vermont 12 Analytes	8260C - TCL VOCs	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	N	A		
FRB-001-20200713-01	7/13/2020	1230	G	Water	N	N		X		2	
ERB-001-20200713-01		1230	G	Water	N	N		X		2	
TB-20200713-01		—	G	Water	N	N			X	2	
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

KP

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

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) ~~IV, ASP Cat B deliverables~~ (KP) PDF report

Special Instructions/QC Requirements: (KP) ~~EQUIS~~ Excel EDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Heather Lyle	7/14/2020 1232	ERM	Karl Yoder	7/14/20 1232	Eurofins
Relinquished by: Karl Yoder	Date/Time: 7/14/20 1700	Company Eurofins	Received by:	Date/Time: 7/15/20 10:35	Company TABUR
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: 01/16/2019


ORIGIN ID:DSVA (518) 438-8140
TIM KNOLLMEYER
TESTAMERICA LAB INC
25 KRAFT AVE
ALBANY, NY 12205
UNITED STATES US
TO SAMPLE RECEIVING
TESTAMERICA - BURLINGTON
30 COMMUNITY DRIVE, SUITE 11
BURLINGTON VT 05403
(802) 660 - 1990
REF: REM PFAS
BILL THIRD PARTY
FedEx
Expre
TRK# 0201 1891 4486 0030
WED 15 JUL 10:30A
PRIORITY OVERNIGHT
XH BTVA
05403
VT US BTV
Part # 156148-434 RIT EXP 09/19

Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 480-172344-1
SDG Number: 480-172344-1

Login Number: 172344
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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	3.4 #1 ICE
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ERM
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 480-172344-1
SDG Number: 480-172344-1

Login Number: 172344
List Number: 2
Creator: McNabb, Robert W

List Source: Eurofins TestAmerica, Burlington
List Creation: 07/16/20 10:12 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1247502
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	2.1ºC
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.	N/A	
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: ERM-Northeast

Job Number: 480-172344-1
SDG Number: 480-172344-1

Login Number: 172427
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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	3.3 #1 ICE
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ERM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 480-172344-1
SDG Number: 480-172344-1

Login Number: 172427
List Number: 2
Creator: McNabb, Robert W

List Source: Eurofins TestAmerica, Burlington
List Creation: 07/17/20 08:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1247513
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	1.2ºC
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	KP, OB
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.	N/A	
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 America



ANALYTICAL REPORT

Eurofins TestAmerica, Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-54334-1
Laboratory Sample Delivery Group: 200-54334-1
Client Project/Site: Energizer-Bennington
Revision: 1

For:
ERM-Northeast
One Beacon Steet
5th Floor
Boston, Massachusetts 02108

Attn: Ms. Heather M Usle

Kathryn Kelly

Authorized for release by:
1/26/2021 5:14:24 PM

Kathryn Kelly, Project Manager II
(802)923-1021
Kathryn.Kelly@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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: 200-54334-1

Laboratory: Eurofins TestAmerica, Burlington

Narrative

CASE NARRATIVE

Client: ERM-Northeast

Project: Energizer-Bennington

Report Number: 200-54334-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 07/10/2020; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS
Samples SSV-03-20200708-01, SSV-01-20200708-01, SSV-04-20200708-01, SSV-02-20200708-01 and DUP-20200708-01 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 07/14/2020 and 07/15/2020.

Samples SSV-02-20200708-01[2.99X] and DUP-20200708-01[2.99X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Client Sample ID: SSV-03-20200708-01 — Lab Sample ID: 200-54334-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.087	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
Benzene	0.16	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Trichloroethene	8.9		0.20	0.035	ppb v/v	1		TO-15	Total/NA
Toluene	2.1		0.20	0.11	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	1.2		0.20	0.033	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.16	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.76		0.50	0.10	ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.47		0.20	0.048	ppb v/v	1		TO-15	Total/NA
Xylene (total)	1.2		0.70	0.048	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.22	J	0.51	0.11	ug/m3	1		TO-15	Total/NA
Benzene	0.50	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Trichloroethene	48		1.1	0.19	ug/m3	1		TO-15	Total/NA
Toluene	7.8		0.75	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	8.0		1.4	0.22	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.70	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
m,p-Xylene	3.3		2.2	0.43	ug/m3	1		TO-15	Total/NA
Xylene, o-	2.0		0.87	0.21	ug/m3	1		TO-15	Total/NA
Xylene (total)	5.3		3.0	0.21	ug/m3	1		TO-15	Total/NA

Client Sample ID: SSV-04-20200708-01 — Lab Sample ID: 200-54334-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.097	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
Benzene	0.26		0.20	0.067	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.12	J	0.20	0.035	ppb v/v	1		TO-15	Total/NA
Toluene	4.2		0.20	0.11	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.070	J	0.20	0.033	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.16	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.49	J	0.50	0.10	ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.19	J	0.20	0.048	ppb v/v	1		TO-15	Total/NA
Xylene (total)	0.68	J	0.70	0.048	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.25	J	0.51	0.11	ug/m3	1		TO-15	Total/NA
Benzene	0.83		0.64	0.21	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.66	J	1.1	0.19	ug/m3	1		TO-15	Total/NA
Toluene	16		0.75	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.48	J	1.4	0.22	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.71	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
m,p-Xylene	2.1	J	2.2	0.43	ug/m3	1		TO-15	Total/NA
Xylene, o-	0.81	J	0.87	0.21	ug/m3	1		TO-15	Total/NA
Xylene (total)	3.0	J	3.0	0.21	ug/m3	1		TO-15	Total/NA

Client Sample ID: SSV-01-20200708-01 — Lab Sample ID: 200-54335-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Trichloroethene	1.2		0.20	0.035	ppb v/v	1		TO-15	Total/NA
Toluene	0.94		0.20	0.11	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	13		0.20	0.033	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.17	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Client Sample ID: SSV-01-20200708-01 (Continued) — Lab Sample ID: 200-54335-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m,p-Xylene	0.68		0.50	0.10	ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.25		0.20	0.048	ppb v/v	1		TO-15	Total/NA
Xylene (total)	0.93		0.70	0.048	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.49	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Trichloroethene	6.2		1.1	0.19	ug/m3	1		TO-15	Total/NA
Toluene	3.5		0.75	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	86		1.4	0.22	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.72	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
m,p-Xylene	3.0		2.2	0.43	ug/m3	1		TO-15	Total/NA
Xylene, o-	1.1		0.87	0.21	ug/m3	1		TO-15	Total/NA
Xylene (total)	4.0		3.0	0.21	ug/m3	1		TO-15	Total/NA

Client Sample ID: SSV-02-20200708-01 — Lab Sample ID: 200-54335-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	7.7		0.60	0.10	ppb v/v	2.99		TO-15	Total/NA
Toluene	0.60		0.60	0.33	ppb v/v	2.99		TO-15	Total/NA
Tetrachloroethene	68		0.60	0.099	ppb v/v	2.99		TO-15	Total/NA
Ethylbenzene	0.98		0.60	0.19	ppb v/v	2.99		TO-15	Total/NA
m,p-Xylene	4.1		1.5	0.30	ppb v/v	2.99		TO-15	Total/NA
Xylene, o-	1.2		0.60	0.14	ppb v/v	2.99		TO-15	Total/NA
Xylene (total)	5.3		2.1	0.14	ppb v/v	2.99		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	41		3.2	0.56	ug/m3	2.99		TO-15	Total/NA
Toluene	2.3		2.3	1.2	ug/m3	2.99		TO-15	Total/NA
Tetrachloroethene	460		4.1	0.67	ug/m3	2.99		TO-15	Total/NA
Ethylbenzene	4.3		2.6	0.82	ug/m3	2.99		TO-15	Total/NA
m,p-Xylene	18		6.5	1.3	ug/m3	2.99		TO-15	Total/NA
Xylene, o-	5.3		2.6	0.62	ug/m3	2.99		TO-15	Total/NA
Xylene (total)	23		9.1	0.62	ug/m3	2.99		TO-15	Total/NA

Client Sample ID: DUP-20200708-01 — Lab Sample ID: 200-54335-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	7.0		0.60	0.10	ppb v/v	2.99		TO-15	Total/NA
Tetrachloroethene	63		0.60	0.099	ppb v/v	2.99		TO-15	Total/NA
Ethylbenzene	0.47	J	0.60	0.19	ppb v/v	2.99		TO-15	Total/NA
m,p-Xylene	1.9		1.5	0.30	ppb v/v	2.99		TO-15	Total/NA
Xylene, o-	0.51	J	0.60	0.14	ppb v/v	2.99		TO-15	Total/NA
Xylene (total)	2.4		2.1	0.14	ppb v/v	2.99		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	38		3.2	0.56	ug/m3	2.99		TO-15	Total/NA
Tetrachloroethene	430		4.1	0.67	ug/m3	2.99		TO-15	Total/NA
Ethylbenzene	2.0	J	2.6	0.82	ug/m3	2.99		TO-15	Total/NA
m,p-Xylene	8.0		6.5	1.3	ug/m3	2.99		TO-15	Total/NA
Xylene, o-	2.2	J	2.6	0.62	ug/m3	2.99		TO-15	Total/NA
Xylene (total)	10		9.1	0.62	ug/m3	2.99		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SSV-03-20200708-01

Lab Sample ID: 200-54334-1
Date Collected: 07/08/20 14:43
Matrix: Air
Date Received: 07/10/20 10:37
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.087**	**J**	0.20	0.044	ppb v/v			07/14/20 01:46	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			07/14/20 01:46	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			07/14/20 01:46	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			07/14/20 01:46	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			07/14/20 01:46	1
Benzene	**0.16**	**J**	0.20	0.067	ppb v/v			07/14/20 01:46	1
Trichloroethene	**8.9**		0.20	0.035	ppb v/v			07/14/20 01:46	1
Toluene	**2.1**		0.20	0.11	ppb v/v			07/14/20 01:46	1
Tetrachloroethene	**1.2**		0.20	0.033	ppb v/v			07/14/20 01:46	1
Ethylbenzene	**0.16**	**J**	0.20	0.063	ppb v/v			07/14/20 01:46	1
m,p-Xylene	**0.76**		0.50	0.10	ppb v/v			07/14/20 01:46	1
Xylene, o-	**0.47**		0.20	0.048	ppb v/v			07/14/20 01:46	1
Xylene (total)	**1.2**		0.70	0.048	ppb v/v			07/14/20 01:46	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.22**	**J**	0.51	0.11	ug/m3			07/14/20 01:46	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			07/14/20 01:46	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			07/14/20 01:46	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			07/14/20 01:46	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			07/14/20 01:46	1
Benzene	**0.50**	**J**	0.64	0.21	ug/m3			07/14/20 01:46	1
Trichloroethene	**48**		1.1	0.19	ug/m3			07/14/20 01:46	1
Toluene	**7.8**		0.75	0.41	ug/m3			07/14/20 01:46	1
Tetrachloroethene	**8.0**		1.4	0.22	ug/m3			07/14/20 01:46	1
Ethylbenzene	**0.70**	**J**	0.87	0.27	ug/m3			07/14/20 01:46	1
m,p-Xylene	**3.3**		2.2	0.43	ug/m3			07/14/20 01:46	1
Xylene, o-	**2.0**		0.87	0.21	ug/m3			07/14/20 01:46	1
Xylene (total)	**5.3**		3.0	0.21	ug/m3			07/14/20 01:46	1

Client Sample ID: SSV-04-20200708-01

Lab Sample ID: 200-54334-2
Date Collected: 07/08/20 14:48
Matrix: Air
Date Received: 07/10/20 10:37
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.097**	**J**	0.20	0.044	ppb v/v			07/14/20 02:41	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			07/14/20 02:41	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			07/14/20 02:41	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			07/14/20 02:41	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			07/14/20 02:41	1
Benzene	**0.26**		0.20	0.067	ppb v/v			07/14/20 02:41	1
Trichloroethene	**0.12**	**J**	0.20	0.035	ppb v/v			07/14/20 02:41	1
Toluene	**4.2**		0.20	0.11	ppb v/v			07/14/20 02:41	1
Tetrachloroethene	**0.070**	**J**	0.20	0.033	ppb v/v			07/14/20 02:41	1
Ethylbenzene	**0.16**	**J**	0.20	0.063	ppb v/v			07/14/20 02:41	1
m,p-Xylene	**0.49**	**J**	0.50	0.10	ppb v/v			07/14/20 02:41	1
Xylene, o-	**0.19**	**J**	0.20	0.048	ppb v/v			07/14/20 02:41	1
Xylene (total)	**0.68**	**J**	0.70	0.048	ppb v/v			07/14/20 02:41	1

Client Sample ID: SSV-04-20200708-01

Lab Sample ID: 200-54334-2

Date Collected: 07/08/20 14:48
Matrix: Air
Date Received: 07/10/20 10:37
Sample Container: Summa Canister 6L

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.25**	**J**	0.51	0.11	ug/m3			07/14/20 02:41	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			07/14/20 02:41	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			07/14/20 02:41	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			07/14/20 02:41	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			07/14/20 02:41	1
Benzene	**0.83**		0.64	0.21	ug/m3			07/14/20 02:41	1
Trichloroethene	**0.66**	**J**	1.1	0.19	ug/m3			07/14/20 02:41	1
Toluene	**16**		0.75	0.41	ug/m3			07/14/20 02:41	1
Tetrachloroethene	**0.48**	**J**	1.4	0.22	ug/m3			07/14/20 02:41	1
Ethylbenzene	**0.71**	**J**	0.87	0.27	ug/m3			07/14/20 02:41	1
m,p-Xylene	**2.1**	**J**	2.2	0.43	ug/m3			07/14/20 02:41	1
Xylene, o-	**0.81**	**J**	0.87	0.21	ug/m3			07/14/20 02:41	1
Xylene (total)	**3.0**	**J**	3.0	0.21	ug/m3			07/14/20 02:41	1

Client Sample ID: SSV-01-20200708-01

Lab Sample ID: 200-54335-1

Date Collected: 07/08/20 12:33
Matrix: Air
Date Received: 07/10/20 10:37
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			07/15/20 19:14	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			07/15/20 19:14	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			07/15/20 19:14	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			07/15/20 19:14	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			07/15/20 19:14	1
Benzene	**0.15**	**J**	0.20	0.067	ppb v/v			07/15/20 19:14	1
Trichloroethene	**1.2**		0.20	0.035	ppb v/v			07/15/20 19:14	1
Toluene	**0.94**		0.20	0.11	ppb v/v			07/15/20 19:14	1
Tetrachloroethene	**13**		0.20	0.033	ppb v/v			07/15/20 19:14	1
Ethylbenzene	**0.17**	**J**	0.20	0.063	ppb v/v			07/15/20 19:14	1
m,p-Xylene	**0.68**		0.50	0.10	ppb v/v			07/15/20 19:14	1
Xylene, o-	**0.25**		0.20	0.048	ppb v/v			07/15/20 19:14	1
Xylene (total)	**0.93**		0.70	0.048	ppb v/v			07/15/20 19:14	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			07/15/20 19:14	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			07/15/20 19:14	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			07/15/20 19:14	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			07/15/20 19:14	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			07/15/20 19:14	1
Benzene	**0.49**	**J**	0.64	0.21	ug/m3			07/15/20 19:14	1
Trichloroethene	**6.2**		1.1	0.19	ug/m3			07/15/20 19:14	1
Toluene	**3.5**		0.75	0.41	ug/m3			07/15/20 19:14	1
Tetrachloroethene	**86**		1.4	0.22	ug/m3			07/15/20 19:14	1
Ethylbenzene	**0.72**	**J**	0.87	0.27	ug/m3			07/15/20 19:14	1
m,p-Xylene	**3.0**		2.2	0.43	ug/m3			07/15/20 19:14	1
Xylene, o-	**1.1**		0.87	0.21	ug/m3			07/15/20 19:14	1
Xylene (total)	**4.0**		3.0	0.21	ug/m3			07/15/20 19:14	1

Client Sample ID: SSV-02-20200708-01

Lab Sample ID: 200-54335-2

Date Collected: 07/08/20 12:11
Matrix: Air
Date Received: 07/10/20 10:37
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.13	U	0.60	0.13	ppb v/v			07/15/20 20:09	2.99
1,1-Dichloroethene	0.12	U	0.60	0.12	ppb v/v			07/15/20 20:09	2.99
trans-1,2-Dichloroethene	0.13	U	0.60	0.13	ppb v/v			07/15/20 20:09	2.99
cis-1,2-Dichloroethene	0.13	U	0.60	0.13	ppb v/v			07/15/20 20:09	2.99
1,2-Dichloroethene, Total	0.13	U	1.2	0.13	ppb v/v			07/15/20 20:09	2.99
Benzene	0.20	U	0.60	0.20	ppb v/v			07/15/20 20:09	2.99
Trichloroethene	**7.7**		0.60	0.10	ppb v/v			07/15/20 20:09	2.99
Toluene	**0.60**		0.60	0.33	ppb v/v			07/15/20 20:09	2.99
Tetrachloroethene	**68**		0.60	0.099	ppb v/v			07/15/20 20:09	2.99
Ethylbenzene	**0.98**		0.60	0.19	ppb v/v			07/15/20 20:09	2.99
m,p-Xylene	**4.1**		1.5	0.30	ppb v/v			07/15/20 20:09	2.99
Xylene, o-	**1.2**		0.60	0.14	ppb v/v			07/15/20 20:09	2.99
Xylene (total)	**5.3**		2.1	0.14	ppb v/v			07/15/20 20:09	2.99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.34	U	1.5	0.34	ug/m3			07/15/20 20:09	2.99
1,1-Dichloroethene	0.46	U	2.4	0.46	ug/m3			07/15/20 20:09	2.99
trans-1,2-Dichloroethene	0.50	U	2.4	0.50	ug/m3			07/15/20 20:09	2.99
cis-1,2-Dichloroethene	0.53	U	2.4	0.53	ug/m3			07/15/20 20:09	2.99
1,2-Dichloroethene, Total	0.50	U	4.7	0.50	ug/m3			07/15/20 20:09	2.99
Benzene	0.64	U	1.9	0.64	ug/m3			07/15/20 20:09	2.99
Trichloroethene	**41**		3.2	0.56	ug/m3			07/15/20 20:09	2.99
Toluene	**2.3**		2.3	1.2	ug/m3			07/15/20 20:09	2.99
Tetrachloroethene	**460**		4.1	0.67	ug/m3			07/15/20 20:09	2.99
Ethylbenzene	**4.3**		2.6	0.82	ug/m3			07/15/20 20:09	2.99
m,p-Xylene	**18**		6.5	1.3	ug/m3			07/15/20 20:09	2.99
Xylene, o-	**5.3**		2.6	0.62	ug/m3			07/15/20 20:09	2.99
Xylene (total)	**23**		9.1	0.62	ug/m3			07/15/20 20:09	2.99

Client Sample ID: DUP-20200708-01

Lab Sample ID: 200-54335-3

Date Collected: 07/08/20 12:00
Matrix: Air
Date Received: 07/10/20 10:37
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.13	U	0.60	0.13	ppb v/v			07/15/20 21:04	2.99
1,1-Dichloroethene	0.12	U	0.60	0.12	ppb v/v			07/15/20 21:04	2.99
trans-1,2-Dichloroethene	0.13	U	0.60	0.13	ppb v/v			07/15/20 21:04	2.99
cis-1,2-Dichloroethene	0.13	U	0.60	0.13	ppb v/v			07/15/20 21:04	2.99
1,2-Dichloroethene, Total	0.13	U	1.2	0.13	ppb v/v			07/15/20 21:04	2.99
Benzene	0.20	U	0.60	0.20	ppb v/v			07/15/20 21:04	2.99
Trichloroethene	**7.0**		0.60	0.10	ppb v/v			07/15/20 21:04	2.99
Toluene	0.33	U	0.60	0.33	ppb v/v			07/15/20 21:04	2.99
Tetrachloroethene	**63**		0.60	0.099	ppb v/v			07/15/20 21:04	2.99
Ethylbenzene	**0.47**	**J**	0.60	0.19	ppb v/v			07/15/20 21:04	2.99
m,p-Xylene	**1.9**		1.5	0.30	ppb v/v			07/15/20 21:04	2.99
Xylene, o-	**0.51**	**J**	0.60	0.14	ppb v/v			07/15/20 21:04	2.99
Xylene (total)	**2.4**		2.1	0.14	ppb v/v			07/15/20 21:04	2.99

Client Sample Results

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Client Sample ID: DUP-20200708-01

Date Collected: 07/08/20 12:00
Date Received: 07/10/20 10:37
Sample Container: Summa Canister 6L

Lab Sample ID: 200-54335-3

Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.34	U	1.5	0.34	ug/m3			07/15/20 21:04	2.99
1,1-Dichloroethene	0.46	U	2.4	0.46	ug/m3			07/15/20 21:04	2.99
trans-1,2-Dichloroethene	0.50	U	2.4	0.50	ug/m3			07/15/20 21:04	2.99
cis-1,2-Dichloroethene	0.53	U	2.4	0.53	ug/m3			07/15/20 21:04	2.99
1,2-Dichloroethene, Total	0.50	U	4.7	0.50	ug/m3			07/15/20 21:04	2.99
Benzene	0.64	U	1.9	0.64	ug/m3			07/15/20 21:04	2.99
Trichloroethene	**38**		3.2	0.56	ug/m3			07/15/20 21:04	2.99
Toluene	1.2	U	2.3	1.2	ug/m3			07/15/20 21:04	2.99
Tetrachloroethene	**430**		4.1	0.67	ug/m3			07/15/20 21:04	2.99
Ethylbenzene	**2.0**	**J**	2.6	0.82	ug/m3			07/15/20 21:04	2.99
m,p-Xylene	**8.0**		6.5	1.3	ug/m3			07/15/20 21:04	2.99
Xylene, o-	**2.2**	**J**	2.6	0.62	ug/m3			07/15/20 21:04	2.99
Xylene (total)	**10**		9.1	0.62	ug/m3			07/15/20 21:04	2.99

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-156745/5
Matrix: Air
Analysis Batch: 156745

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			07/13/20 13:57	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			07/13/20 13:57	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			07/13/20 13:57	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			07/13/20 13:57	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			07/13/20 13:57	1
Benzene	0.067	U	0.20	0.067	ppb v/v			07/13/20 13:57	1
Trichloroethene	0.035	U	0.20	0.035	ppb v/v			07/13/20 13:57	1
Toluene	0.11	U	0.20	0.11	ppb v/v			07/13/20 13:57	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			07/13/20 13:57	1
Ethylbenzene	0.063	U	0.20	0.063	ppb v/v			07/13/20 13:57	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			07/13/20 13:57	1
Xylene, o-	0.048	U	0.20	0.048	ppb v/v			07/13/20 13:57	1
Xylene (total)	0.048	U	0.70	0.048	ppb v/v			07/13/20 13:57	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			07/13/20 13:57	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			07/13/20 13:57	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			07/13/20 13:57	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			07/13/20 13:57	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			07/13/20 13:57	1
Benzene	0.21	U	0.64	0.21	ug/m3			07/13/20 13:57	1
Trichloroethene	0.19	U	1.1	0.19	ug/m3			07/13/20 13:57	1
Toluene	0.41	U	0.75	0.41	ug/m3			07/13/20 13:57	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			07/13/20 13:57	1
Ethylbenzene	0.27	U	0.87	0.27	ug/m3			07/13/20 13:57	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			07/13/20 13:57	1
Xylene, o-	0.21	U	0.87	0.21	ug/m3			07/13/20 13:57	1
Xylene (total)	0.21	U	3.0	0.21	ug/m3			07/13/20 13:57	1

Lab Sample ID: LCS 200-156745/4
Matrix: Air
Analysis Batch: 156745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	9.99	9.55		ppb v/v		96	61 - 135
1,1-Dichloroethene	10.2	9.98		ppb v/v		98	68 - 120
trans-1,2-Dichloroethene	10.3	11.5		ppb v/v		111	69 - 137
cis-1,2-Dichloroethene	10.4	9.45		ppb v/v		91	72 - 121
Benzene	10.4	10.8		ppb v/v		104	73 - 119
Trichloroethene	10.3	10.8		ppb v/v		105	73 - 122
Toluene	10.2	10.4		ppb v/v		102	75 - 122
Tetrachloroethene	10.5	10.9		ppb v/v		104	70 - 125
Ethylbenzene	10.2	10.8		ppb v/v		106	74 - 122
m,p-Xylene	20.0	21.9		ppb v/v		110	76 - 121
Xylene, o-	10.4	11.0		ppb v/v		106	73 - 123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	26	24.4		ug/m3		96	61 - 135
1,1-Dichloroethene	40	39.6		ug/m3		98	68 - 120

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-156745/4
Matrix: Air
Analysis Batch: 156745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	41	45.4		ug/m3		111	69 - 137
cis-1,2-Dichloroethene	41	37.5		ug/m3		91	72 - 121
Benzene	33	34.4		ug/m3		104	73 - 119
Trichloroethene	55	58.2		ug/m3		105	73 - 122
Toluene	38	39.4		ug/m3		102	75 - 122
Tetrachloroethene	71	74.0		ug/m3		104	70 - 125
Ethylbenzene	44	47.1		ug/m3		106	74 - 122
m,p-Xylene	87	95.2		ug/m3		110	76 - 121
Xylene, o-	45	47.7		ug/m3		106	73 - 123

Lab Sample ID: MB 200-156843/6
Matrix: Air
Analysis Batch: 156843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			07/15/20 12:52	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			07/15/20 12:52	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			07/15/20 12:52	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			07/15/20 12:52	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			07/15/20 12:52	1
Benzene	0.067	U	0.20	0.067	ppb v/v			07/15/20 12:52	1
Trichloroethene	0.035	U	0.20	0.035	ppb v/v			07/15/20 12:52	1
Toluene	0.11	U	0.20	0.11	ppb v/v			07/15/20 12:52	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			07/15/20 12:52	1
Ethylbenzene	0.063	U	0.20	0.063	ppb v/v			07/15/20 12:52	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			07/15/20 12:52	1
Xylene, o-	0.048	U	0.20	0.048	ppb v/v			07/15/20 12:52	1
Xylene (total)	0.048	U	0.70	0.048	ppb v/v			07/15/20 12:52	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			07/15/20 12:52	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			07/15/20 12:52	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			07/15/20 12:52	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			07/15/20 12:52	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			07/15/20 12:52	1
Benzene	0.21	U	0.64	0.21	ug/m3			07/15/20 12:52	1
Trichloroethene	0.19	U	1.1	0.19	ug/m3			07/15/20 12:52	1
Toluene	0.41	U	0.75	0.41	ug/m3			07/15/20 12:52	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			07/15/20 12:52	1
Ethylbenzene	0.27	U	0.87	0.27	ug/m3			07/15/20 12:52	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			07/15/20 12:52	1
Xylene, o-	0.21	U	0.87	0.21	ug/m3			07/15/20 12:52	1
Xylene (total)	0.21	U	3.0	0.21	ug/m3			07/15/20 12:52	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-156843/5
Matrix: Air
Analysis Batch: 156843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	9.99	9.78		ppb v/v		98	61 - 135
1,1-Dichloroethene	10.2	9.86		ppb v/v		97	68 - 120
trans-1,2-Dichloroethene	10.3	11.3		ppb v/v		109	69 - 137
cis-1,2-Dichloroethene	10.4	9.05		ppb v/v		87	72 - 121
Benzene	10.4	9.99		ppb v/v		96	73 - 119
Trichloroethene	10.3	9.98		ppb v/v		97	73 - 122
Toluene	10.2	9.55		ppb v/v		94	75 - 122
Tetrachloroethene	10.5	10.2		ppb v/v		98	70 - 125
Ethylbenzene	10.2	10.1		ppb v/v		99	74 - 122
m,p-Xylene	20.0	20.5		ppb v/v		103	76 - 121
Xylene, o-	10.4	10.3		ppb v/v		99	73 - 123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	26	25.0		ug/m3		98	61 - 135
1,1-Dichloroethene	40	39.1		ug/m3		97	68 - 120
trans-1,2-Dichloroethene	41	44.6		ug/m3		109	69 - 137
cis-1,2-Dichloroethene	41	35.9		ug/m3		87	72 - 121
Benzene	33	31.9		ug/m3		96	73 - 119
Trichloroethene	55	53.6		ug/m3		97	73 - 122
Toluene	38	36.0		ug/m3		94	75 - 122
Tetrachloroethene	71	69.3		ug/m3		98	70 - 125
Ethylbenzene	44	43.8		ug/m3		99	74 - 122
m,p-Xylene	87	89.2		ug/m3		103	76 - 121
Xylene, o-	45	44.8		ug/m3		99	73 - 123

QC Association Summary

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Air - GC/MS VOA

Analysis Batch: 156745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-54334-1	SSV-03-20200708-01	Total/NA	Air	TO-15	
200-54334-2	SSV-04-20200708-01	Total/NA	Air	TO-15	
MB 200-156745/5	Method Blank	Total/NA	Air	TO-15	
LCS 200-156745/4	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 156843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-54335-1	SSV-01-20200708-01	Total/NA	Air	TO-15	
200-54335-2	SSV-02-20200708-01	Total/NA	Air	TO-15	
200-54335-3	DUP-20200708-01	Total/NA	Air	TO-15	
MB 200-156843/6	Method Blank	Total/NA	Air	TO-15	
LCS 200-156843/5	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Client Sample ID: SSV-03-20200708-01
Lab Sample ID: 200-54334-1
Date Collected: 07/08/20 14:43
Matrix: Air
Date Received: 07/10/20 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	156745	07/14/20 01:46	K1P	TAL BUR

Client Sample ID: SSV-04-20200708-01
Lab Sample ID: 200-54334-2
Date Collected: 07/08/20 14:48
Matrix: Air
Date Received: 07/10/20 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	156745	07/14/20 02:41	K1P	TAL BUR

Client Sample ID: SSV-01-20200708-01
Lab Sample ID: 200-54335-1
Date Collected: 07/08/20 12:33
Matrix: Air
Date Received: 07/10/20 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	156843	07/15/20 19:14	K1P	TAL BUR

Client Sample ID: SSV-02-20200708-01
Lab Sample ID: 200-54335-2
Date Collected: 07/08/20 12:11
Matrix: Air
Date Received: 07/10/20 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		2.99	156843	07/15/20 20:09	K1P	TAL BUR

Client Sample ID: DUP-20200708-01
Lab Sample ID: 200-54335-3
Date Collected: 07/08/20 12:00
Matrix: Air
Date Received: 07/10/20 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		2.99	156843	07/15/20 21:04	K1P	TAL BUR

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	07-29-20
Minnesota	NELAP	050-999-436	12-01-20
New Hampshire	NELAP	2006	08-25-20
New Jersey	NELAP	VT972	08-04-20
New York	NELAP	10391	04-01-21
Pennsylvania	NELAP	68-00489	09-14-20
Rhode Island	State	LAO00298	12-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00272	08-09-20
Vermont	State	VT4000	12-30-20
Virginia	NELAP	460209	12-14-20
Wisconsin	State	399133350	12-20-20

Method Summary

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: ERM-Northeast
Project/Site: Energizer-Bennington

Job ID: 200-54334-1
SDG: 200-54334-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-54334-1	SSV-03-20200708-01	Air	07/08/20 14:43	07/10/20 10:37	Air Canister (6-Liter) #4116
200-54334-2	SSV-04-20200708-01	Air	07/08/20 14:48	07/10/20 10:37	Air Canister (6-Liter) #4295
200-54335-1	SSV-01-20200708-01	Air	07/08/20 12:33	07/10/20 10:37	Air Canister (6-Liter) #2851
200-54335-2	SSV-02-20200708-01	Air	07/08/20 12:11	07/10/20 10:37	Air Canister (6-Liter) #5703
200-54335-3	DUP-20200708-01	Air	07/08/20 12:00	07/10/20 10:37	Air Canister (6-Liter) #5464

Eurofins TestAmerica, Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** Elise LeBlanc	**Samples Collected By:** Caldwell Payne
Company Name: ERM	**Phone:** 617-646-7853	COC No: 2 of 2 COCs
Address: 5784 Widewaters Parkway	**Email:** Elise.LeBlanc@ERM.com	
City/State/Zip Syracuse, NY 13214		For Lab Use Only:
Phone: 315-445-2554	**Site Contact:**	Walk-in Client:
FAX:	**Tel/Fax**	Lab Sampling:
Project Name: Energizer - Bennington	**Analysis Turnaround Time**	Job / SDG No.:
Site/Location:	Standard (Specific):	(See below for Add'l Items)
P O #	Rush (Specifiy):	

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil-Vapor-Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SSV-03-20200708-01	7/8/20	13:56	7/8/20	14:43	-29	-5	6535	4116	X									X					
SSV-04-20200708-01	7/8/20	14:08	7/8/20	14:48	-27	-5	6088	4295	X									X					

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

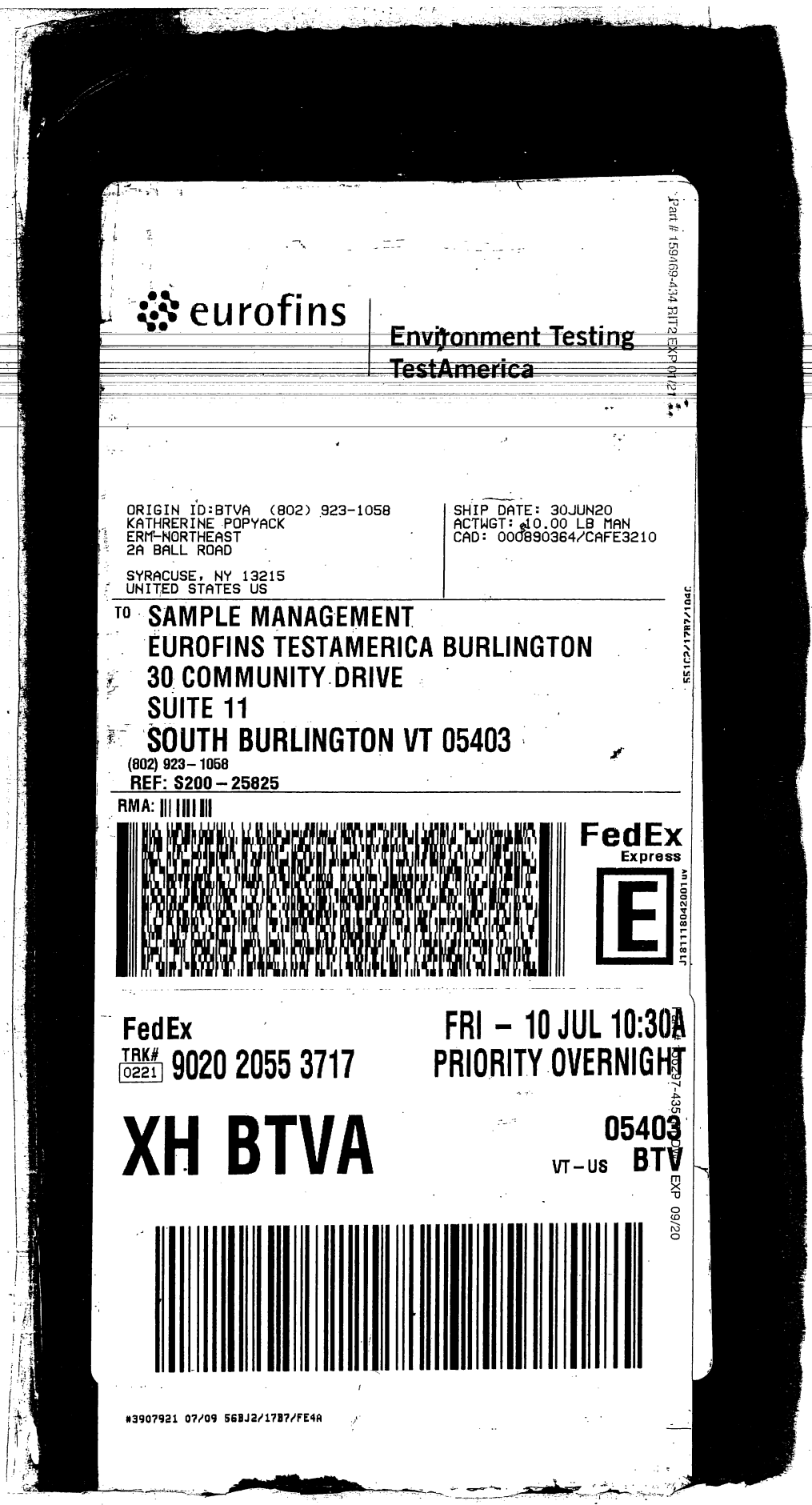
200-54334 COC

Special Instructions/QC Requirements & Comments:

Samples Shipped by: Caldwell Payne	**Date / Time:** 7/9/20 09:30	**Samples Received by:** 7/10/2020 1037
Samples Relinquished by:	**Date / Time:**	**Received by:**
Relinquished by:	**Date / Time:**	**Received by:**
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

1/26/2021 (Rev. 1)



eurofins | Environment Testing TestAmerica

Part # 159469-434 RIT2 EXP 01/21

ORIGIN ID:BTVA (802) 923-1058
KATHRERINE POPYACK
ERM-NORTHEAST
2A BALL ROAD

SYRACUSE, NY 13215
UNITED STATES US

SHIP DATE: 30JUN20
ACTWGT: 10.00 LB MAN
CAD: 000890364/CAFE3210

TO SAMPLE MANAGEMENT
EUROFINS TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 923-1058
REF: S200-25825

RMA:

FedEx Express

FedEx
TRK# 0221 9020 2055 3717

FRI - 10 JUL 10:30A
PRIORITY OVERNIGHT

XH BTVA

05403
VT-US BTV

#3907921 07/09 56BJ2/17B7/FE4A

Part # 0027-4355 REV EXP 09/20

Eurofins TestAmerica, Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** Elise LeBlanc	**Samples Collected By:** Caldwell Paine, Kathryn Papcsek	COC No: 1 of 2 COCs
Company Name: ERM	Phone: 617-646-7853		
Address: 5784 Widewaters Parkway	Email: Elise.leblanc@erm.com		
City/State/Zip Syracuse, NY 13214			
Phone: 315-445-2554	Site Contact:		For Lab Use Only:
FAX:	Tel/Fax		Walk-in Client:
Project Name: Energizer - Bennington	Analysis Turnaround Time		Lab Sampling:
Site/Location:	Standard (Specific):		Job / SDG No.:
P O #	Rush (Specifiy):		(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SSV-01-20200708-01	7/8/20	11:57	7/9/20	12:33	-27	-3	5889	2851	X									X					
SSV-02-20200708-01	7/8/20	11:32	7/8/20	12:11	-28	-4	5902	5703	X									X					
DUP-20200708-01	7/8/20	11:21	7/8/20	12:00	-29	-5	5884	5464	X									X					

CP

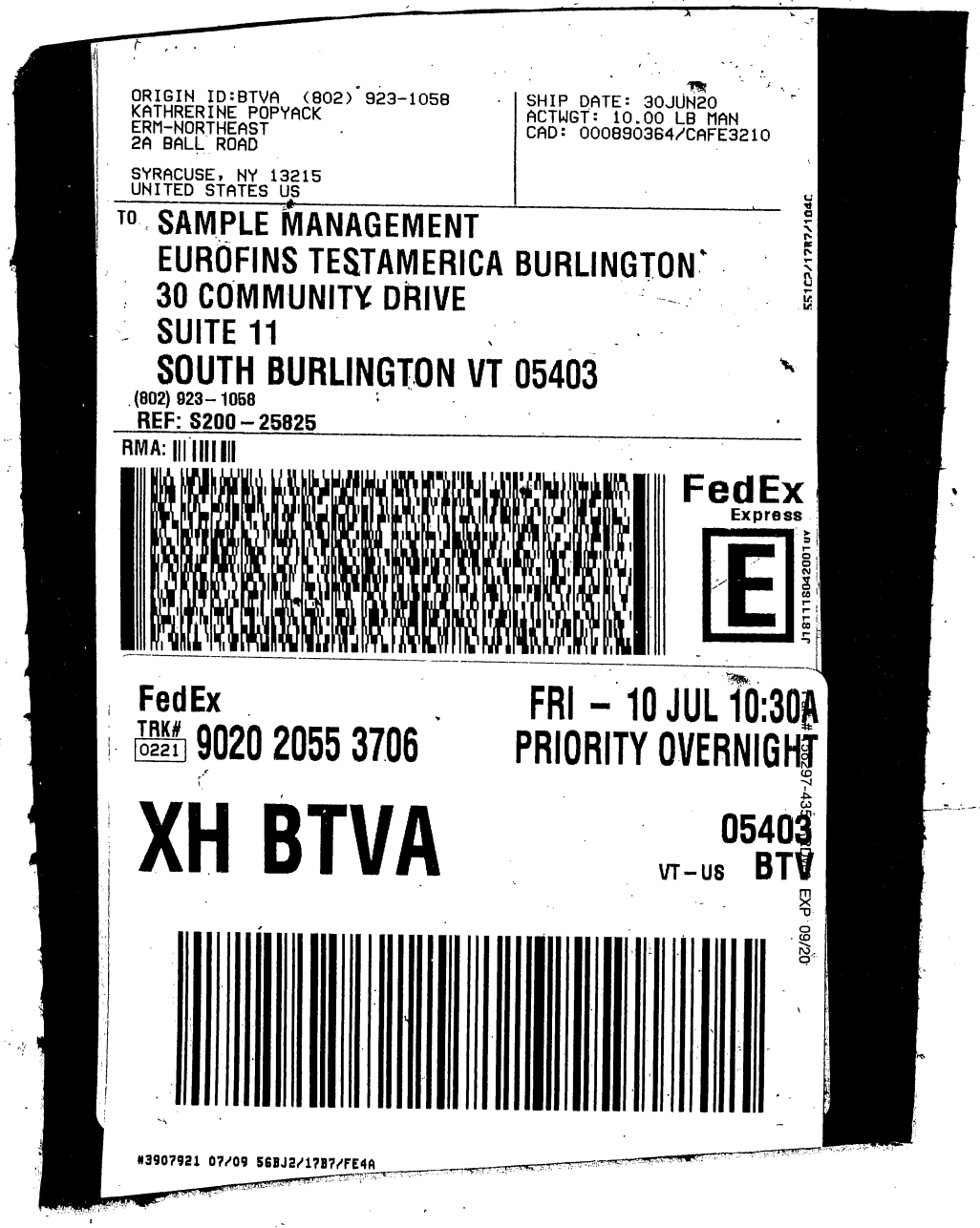
Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

200-54335 COC

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:** 7/9/20 0930	**Samples Received by:** TA Rep	7/10/2020 10:37
Samples Relinquished by:	**Date / Time:**	**Received by:**	
Relinquished by:	**Date / Time:**	**Received by:**	
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**	



ORIGIN ID:BTVA (802) 923-1058
KATHRERINE POPYACK
ERM-NORTHEAST
2A BALL ROAD

SYRACUSE, NY 13215
UNITED STATES US

SHIP DATE: 30JUN20
ACTWGT: 10.00 LB MAN
CAD: 000890364/CAFE3210

TO SAMPLE MANAGEMENT
EUROFINS TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 923-1058
REF: S200-25825

RMA:

FedEx Express

FedEx
TRK# 0221 9020 2055 3706

FRI - 10 JUL 10:30A
PRIORITY OVERNIGHT

XH BTVA

05403
VT-US BTV

#3907921 07/09 56BJ2/1787/FE4A

Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 200-54334-1
SDG Number: 200-54334-1

Login Number: 54334
List Number: 1
Creator: Lavigne, Scott M

List Source: Eurofins TestAmerica, Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Not present
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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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.	N/A	
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: ERM-Northeast

Job Number: 200-54334-1
SDG Number: 200-54334-1

Login Number: 54335
List Number: 1
Creator: Lavigne, Scott M

List Source: Eurofins TestAmerica, Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Not present
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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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.	N/A	
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	

Pre-Shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID	Max DF#	# Cycles	Cleaning Start Date/Time		System Start Temp(s):		Technician	Can Size	Certi
Oven 1/2	10	50	6/9/2020	1530	21	21	SML	6 liter	bat

Port	Can ID	Initial[1] (psia)	Final (psia)	Diff.[3]	Final ("Hg)	Initial Reading Gauge:	Date:	Time:	Tech:	Temp:	Final Reading Gauge:	Date:	Time:	Tech:	T
1	5464	1.01	1.01	0	29.5	G26	6/10/20	1346	S—	21.0	G26	6/29/20	1411	S—	22.0
2	4295	↓	1.01	0	29.5	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
3	34001333		1.01	0	29.5	G26					G26				
4	5703		1.01	0	29.5	G26					G26				
5	34000379		1.01	0	29.5	G26					G26				
6	5129		1.01	0	29.5	G26					G26				
7	2851		1.01	0	29.5	G26					G26				
8	4116		1.01	0	29.5	G26					G26				
9	2852		1.01	0	29.5	G26					G26				
10	4792		1.01	0	29.5	G26					G26				
11	4673	↓	1.01	0	29.5	G26					G26				
12	3530	1.01	1.01	0	29.6	G26	6/29/20	1443	S—	22.0	G26	6/30/20	1303	S—	23.0

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister **PM Authorization** **Date:**

Clean Canister Certification Analysis & Authorization of Release to Inventory

Test Method: ☒ TO15 Routine ☐ TO15 LL

Can ID	Date	Sequence	Analyst	Inventory Level 1	2	3	4	Secondary Review Limited	Review Date	Review
3530	6/15/20	41550	KBJ		XXXXXXX				6/15/20	JHS

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:

200-53903-A-12
3530
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 6/9/2020 12:00 AM 200-1391487

Loc: 200 53903 #12 A

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-53903-1

SDG No.:

Client Sample ID: 3530 Lab Sample ID: 200-53903-12

Matrix: Air Lab File ID: 41556-18.D

Analysis Method: TO-15 Date Collected: 06/09/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 06/13/2020 00:52

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 155751 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene(Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.080	U	0.080	0.080
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-53903-1

SDG No.:

Client Sample ID: 3530 Lab Sample ID: 200-53903-12

Matrix: Air Lab File ID: 41556-18.D

Analysis Method: TO-15 Date Collected: 06/09/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 06/13/2020 00:52

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 155751 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.14	U	0.14	0.14
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-53903-1

SDG No.:

Client Sample ID: 3530 Lab Sample ID: 200-53903-12

Matrix: Air Lab File ID: 41556-18.D

Analysis Method: TO-15 Date Collected: 06/09/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 06/13/2020 00:52

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 155751 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHC.i\20200612-41556.b\41556-18.D
Lims ID: 200-53903-A-12
Client ID: 3530
Sample Type: Client
Inject. Date: 13-Jun-2020 00:52:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0041556-018
Misc. Info.: 53903-12
Operator ID: ggg Instrument ID: CHC.i

Method: \\chromfs\Burlington\ChromData\CHC.i\20200612-41556.b\TO15_MasterMethod_(v1)_CHC.i.m
Limit Group: AI_TO15_ICAL
Last Update: 15-Jun-2020 08:57:13 Calib Date: 27-May-2020 05:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHC.i\20200526-41339.b\41339-16.D

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1035

First Level Reviewer: puangmaleek Date: 15-Jun-2020 08:57:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		2.917				ND	
2 Dichlorodifluoromethane	85		2.981				ND	
3 Chlorodifluoromethane	51		3.024				ND	
4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		3.222				ND	
5 Chloromethane	50		3.339				ND	
6 Butane	43		3.531				ND	
7 Vinyl chloride	62		3.563				ND	
8 Butadiene	54		3.638				ND	
10 Bromomethane	94		4.252				ND	
11 Chloroethane	64		4.476				ND	
13 Vinyl bromide	106		4.849				ND	
14 Trichlorofluoromethane	101		4.967				ND	
17 Ethanol	45		5.522				ND	
20 112TCTFE	101		6.024				ND	
21 1,1-Dichloroethene	96		6.040				ND	
22 Acetone	43		6.237				ND	
23 Carbon disulfide	76		6.402				ND	
24 Isopropyl alcohol	45		6.579				ND	
25 3-Chloro-1-propene	41		6.797				ND	
27 Methylene Chloride	49		7.080				ND	
28 2-Methyl-2-propanol	59		7.342				ND	
29 Methyl tert-butyl ether	73		7.523				ND	
31 trans-1,2-Dichloroethene	61		7.534				ND	
33 Hexane	57		7.966				ND	
34 1,1-Dichloroethane	63		8.372				ND	
35 Vinyl acetate	43		8.473				ND	
37 cis-1,2-Dichloroethene	96		9.471				ND	
38 2-Butanone (MEK)	72		9.514				ND	
39 Ethyl acetate	88		9.599				ND	
* 40 Chlorobromomethane	128	9.909	9.914	-0.005	79	511393	20.0	
41 Tetrahydrofuran	42		9.951				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
42 Chloroform	83		10.069				ND	
S 30 1,2-Dichloroethene, Total	61		10.200				ND	
44 1,1,1-Trichloroethane	97		10.341				ND	
43 Cyclohexane	84		10.341				ND	
45 Carbon tetrachloride	117		10.603				ND	
47 Benzene	78		11.035				ND	
46 Isooctane	57		11.072				ND	
48 1,2-Dichloroethane	62		11.195				ND	
49 n-Heptane	43		11.483				ND	
* 50 1,4-Difluorobenzene	114	11.883	11.889	-0.006	95	3430817	20.0	
53 Trichloroethene	95		12.358				ND	
54 1,2-Dichloropropane	63		12.871				ND	
55 Methyl methacrylate	69		13.090				ND	
57 Dibromomethane	174		13.127				ND	
56 1,4-Dioxane	88		13.127				ND	
58 Dichlorobromomethane	83		13.447				ND	
60 cis-1,3-Dichloropropene	75		14.402				ND	
61 4-Methyl-2-pentanone (MIBK)	43		14.707				ND	
65 Toluene	92		15.011				ND	
66 trans-1,3-Dichloropropene	75		15.609				ND	
67 1,1,2-Trichloroethane	83		15.971				ND	
68 Tetrachloroethene	166		16.126				ND	
69 2-Hexanone	43		16.446				ND	
71 Chlorodibromomethane	129		16.740				ND	
72 Ethylene Dibromide	107		16.991				ND	
* 74 Chlorobenzene-d5	117	17.914	17.919	-0.005	87	3894787	20.0	
75 Chlorobenzene	112		17.978				ND	
76 Ethylbenzene	91		18.149				ND	U
78 m-Xylene & p-Xylene	106		18.405				ND	
79 o-Xylene	106		19.238				ND	
80 Styrene	104		19.286				ND	
81 Bromoform	173		19.707				ND	
82 Isopropylbenzene	105		19.980				ND	
S 73 Xylenes, Total	106		20.100				ND	
84 1,1,2,2-Tetrachloroethane	83		20.657				ND	
85 N-Propylbenzene	91		20.759				ND	
89 2-Chlorotoluene	91		20.956				ND	
88 4-Ethyltoluene	105		20.961				ND	
90 1,3,5-Trimethylbenzene	105		21.079				ND	
92 tert-Butylbenzene	119		21.591				ND	
93 1,2,4-Trimethylbenzene	105		21.687				ND	
94 sec-Butylbenzene	105		21.933				ND	
95 4-Isopropyltoluene	119		22.146				ND	
96 1,3-Dichlorobenzene	146		22.157				ND	
97 1,4-Dichlorobenzene	146		22.296				ND	
98 Benzyl chloride	91		22.488				ND	
100 n-Butylbenzene	91		22.728				ND	
101 1,2-Dichlorobenzene	146		22.819				ND	
103 1,2,4-Trichlorobenzene	180		25.178				ND	
104 Hexachlorobutadiene	225		25.380				ND	
105 Naphthalene	128		25.599				ND	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

ATTO15CISs_00010	Amount Added: 40.00	Units: mL	Run Reagent

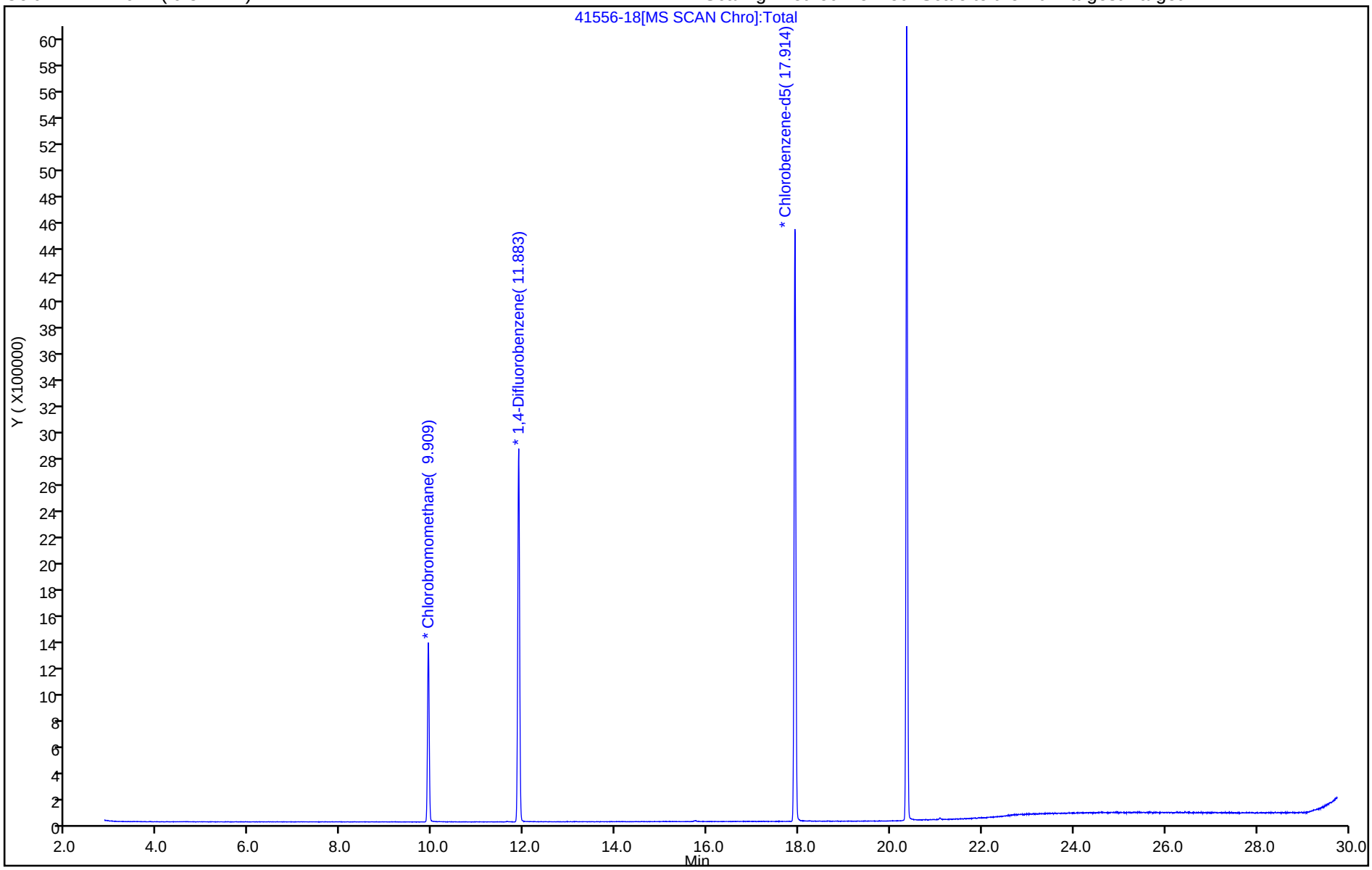
Report Date: 15-Jun-2020 08:57:14 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHC.i\20200612-41556.b\41556-18.D

Injection Date:	13-Jun-2020 00:52:30	Instrument ID:	CHC.i	Operator ID:	ggg
Lims ID:	200-53903-A-12	Lab Sample ID:	200-53903-12	Worklist Smp#:	18
Client ID:	3530				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	18
Method:	TO15_MasterMethod_(v1)_CHC.i	Limit Group:	AI_TO15_ICAL		

Column: RTX-624 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



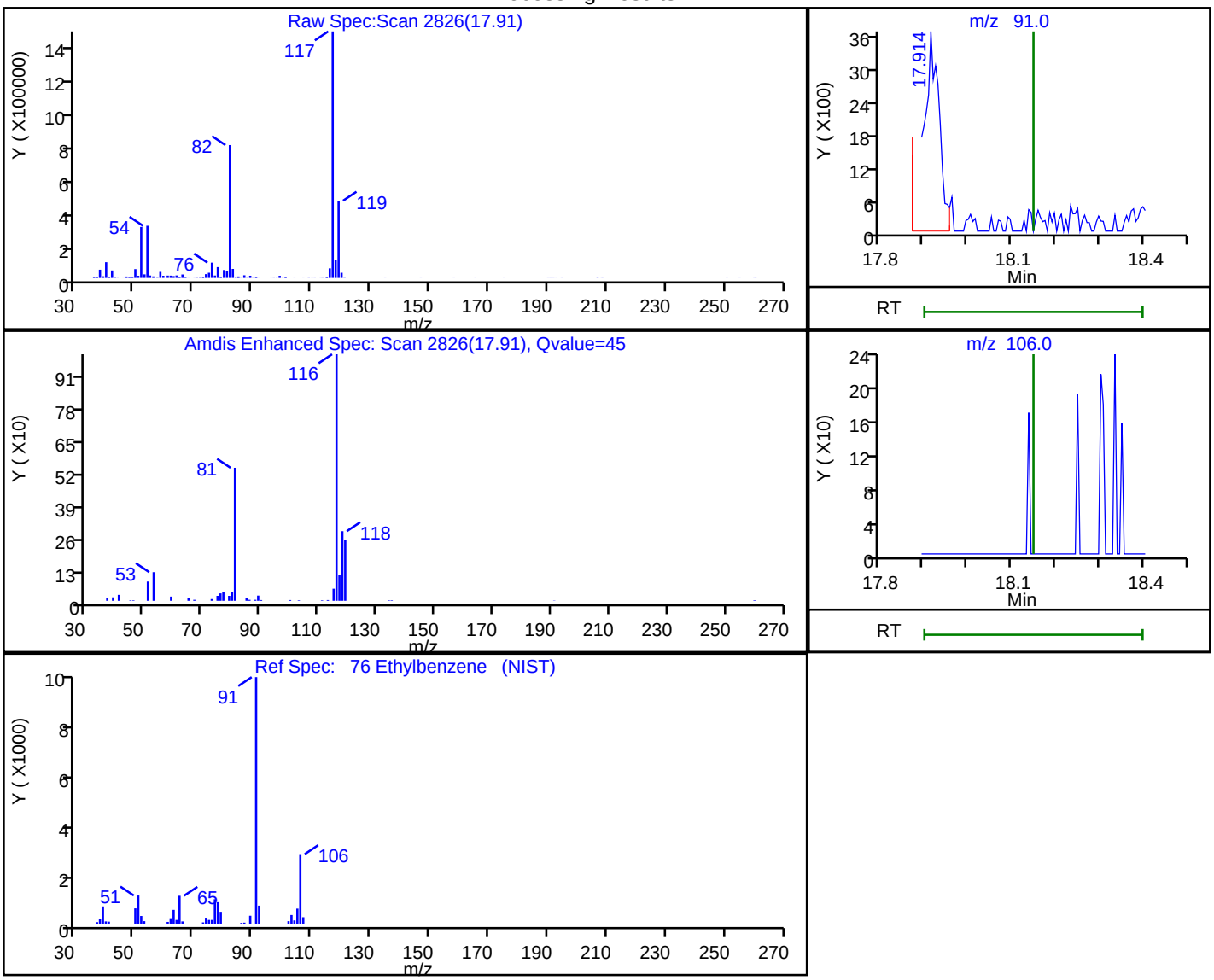
User Disabled Compound Report

Eurofins TestAmerica, Burlington

Data File:	\\chromfs\Burlington\ChromData\CHC.i\20200612-41556.b\41556-18.D				
Injection Date:	13-Jun-2020 00:52:30	Instrument ID:	CHC.i		
Lims ID:	200-53903-A-12	Lab Sample ID:	200-53903-12		
Client ID:	3530				
Operator ID:	ggg	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	200.000 mL	Dil. Factor:	0.2000		
Method:	TO15_MasterMethod_(v1)_CHC.i	Limit Group:	AI_TO15_ICAL		
Column:	RTX-624 (0.32 mm)	Detector	MS SCAN		

76 Ethylbenzene, CAS: 100-41-4

Processing Results



RT	Mass	Response	Amount
17.91	91.00	8431	0.025386
18.15	106.00	0	

Reviewer: puangmaleek, 15-Jun-2020 08:57:04

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-221755-1
Client Project/Site: Bennington, VT - Groundwater Analysis

For:
ERM-Northeast
One Beacon Steet
5th Floor
Boston, Massachusetts 02108

Attn: Jason Hnatko

Authorized for release by:
11/11/2020 10:52:47 AM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

John Schove, Project Manager II
(716)504-9838
John.Schove@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).

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: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 460-221755-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-221755-1

Comments
No additional comments.

Receipt
The samples were received on 10/29/2020 9:20 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: DUP-20201026-01 (460-221755-9). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-557992 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: RB01-20201026-01 (460-221755-3), ERM-16-20201026-01 (460-221755-4), ERM-8-20201026-01 (460-221755-5), MW-104-20201026-01 (460-221755-7), MW-103-20201026-01 (460-221755-8), DUP-20201026-01 (460-221755-9), MW-102-20201027-01 (460-221755-10), MW-10-20201027-01 (460-221755-11) and TB-20201027-01 (460-221755-12).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: ERM-12-20201026-01 (460-221755-6). 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.

LCMS
Method 537 (modified): Internal standard responses were outside of acceptance limits for the following samples: ERM-12-20201026-01 (460-221755-6), MW-103-20201026-01 (460-221755-8), MW-102-20201027-01 (460-221755-10) and MW-10-20201027-01 (460-221755-11). The sample(s) shows evidence of matrix interference.

Method 537 (modified): Method 537 (modified): The “I” qualifier associated with sample MW-10-20201027-01 (460-221755-11) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: EB01-20201026-01 — Lab Sample ID: 460-221755-1

No Detections.

Client Sample ID: EB02-20201026-01 — Lab Sample ID: 460-221755-2

No Detections.

Client Sample ID: RB01-20201026-01 — Lab Sample ID: 460-221755-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.41	J	1.0	0.35	ug/L	1		8260C	Total/NA

Client Sample ID: ERM-16-20201026-01 — Lab Sample ID: 460-221755-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	19		1.0	0.36	ug/L	1		8260C	Total/NA
Perfluorooctanoic acid (PFOA)	9.8		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: ERM-8-20201026-01 — Lab Sample ID: 460-221755-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	3.4		1.8	1.8	ng/L	1		537 (modified)	Total/NA

Client Sample ID: ERM-12-20201026-01 — Lab Sample ID: 460-221755-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	100		4.0	1.4	ug/L	4		8260C	Total/NA
Perfluorooctanoic acid (PFOA)	6.3		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-104-20201026-01 — Lab Sample ID: 460-221755-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.81	J	1.0	0.34	ug/L	1		8260C	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.1		1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.4		1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.2		1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	33		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-103-20201026-01 — Lab Sample ID: 460-221755-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.49	J	1.0	0.34	ug/L	1		8260C	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.8		1.6	1.6	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		1.6	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.6		1.6	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	29		1.6	1.6	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DUP-20201026-01 — Lab Sample ID: 460-221755-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	92		2.0	0.72	ug/L	2		8260C	Total/NA
Perfluorooctanoic acid (PFOA)	6.7		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-102-20201027-01 — Lab Sample ID: 460-221755-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	3.2		1.7	1.7	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: MW-10-20201027-01
Lab Sample ID: 460-221755-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.94	J	1.0	0.46	ug/L	1		8260C	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3	I	1.7	1.7	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	11		1.7	1.7	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TB-20201027-01
Lab Sample ID: 460-221755-12

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: EB01-20201026-01
Lab Sample ID: 460-221755-1

Date Collected: 10/26/20 09:00
Matrix: Water
Date Received: 10/29/20 09:20

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorooctanoic acid (PFOA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 00:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*87*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C2 PFDoA	*80*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C2 PFHxA	*94*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C2 PFTeDA	*62*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C2 PFUnA	*87*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C3 PFBS	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C4 PFHpA	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C4 PFOA	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C4 PFOS	*88*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
13C5 PFNA	*86*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*
18O2 PFHxS	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:49*	*1*

Client Sample ID: EB02-20201026-01
Lab Sample ID: 460-221755-2

Date Collected: 10/26/20 09:10
Matrix: Water
Date Received: 10/29/20 09:20

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorooctanoic acid (PFOA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 00:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:57*	*1*
13C2 PFDoA	*77*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:57*	*1*
13C2 PFHxA	*90*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:57*	*1*
13C2 PFTeDA	*68*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:57*	*1*
13C2 PFUnA	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 00:57*	*1*

Client Sample ID: EB02-20201026-01
Lab Sample ID: 460-221755-2

Date Collected: 10/26/20 09:10
Matrix: Water
Date Received: 10/29/20 09:20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	91		50 - 150	11/03/20 10:57	11/06/20 00:57	1
13C4 PFHpA	92		50 - 150	11/03/20 10:57	11/06/20 00:57	1
13C4 PFOA	87		50 - 150	11/03/20 10:57	11/06/20 00:57	1
13C4 PFOS	92		50 - 150	11/03/20 10:57	11/06/20 00:57	1
13C5 PFNA	90		50 - 150	11/03/20 10:57	11/06/20 00:57	1
18O2 PFHxS	92		50 - 150	11/03/20 10:57	11/06/20 00:57	1

Client Sample ID: RB01-20201026-01
Lab Sample ID: 460-221755-3

Date Collected: 10/26/20 09:20
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 12:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 12:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 12:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 12:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 12:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 12:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 12:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 12:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 12:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 12:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 12:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 12:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 12:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 12:03	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 12:03	1
Acetone	ND		10	3.0	ug/L			11/08/20 12:03	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 12:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 12:03	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 12:03	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 12:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 12:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 12:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 12:03	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 12:03	1
Chloroform	ND		1.0	0.34	ug/L			11/08/20 12:03	1
Chloromethane	**0.41**	**J**	1.0	0.35	ug/L			11/08/20 12:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 12:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 12:03	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 12:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 12:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 12:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 12:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 12:03	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 12:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 12:03	1

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: RB01-20201026-01
Lab Sample ID: 460-221755-3
Date Collected: 10/26/20 09:20
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 12:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 12:03	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 12:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 12:03	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 12:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 12:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 12:03	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 12:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 12:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 12:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 12:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*77 - 120*		*11/08/20 12:03*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*11/08/20 12:03*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 123*		*11/08/20 12:03*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*11/08/20 12:03*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorooctanoic acid (PFOA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C2 PFDoA	*75*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C2 PFHxA	*88*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C2 PFTeDA	*62*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C2 PFUnA	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C3 PFBS	*93*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C4 PFHpA	*91*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C4 PFOA	*85*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C4 PFOS	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
13C5 PFNA	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*
18O2 PFHxS	*90*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:14*	*1*

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: ERM-16-20201026-01
Lab Sample ID: 460-221755-4
Date Collected: 10/26/20 12:20
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 12:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 12:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 12:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 12:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 12:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 12:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 12:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 12:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 12:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 12:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 12:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 12:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 12:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 12:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 12:27	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 12:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 12:27	1
Acetone	ND		10	3.0	ug/L			11/08/20 12:27	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 12:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 12:27	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 12:27	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 12:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 12:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 12:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 12:27	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 12:27	1
Chloroform	ND		1.0	0.34	ug/L			11/08/20 12:27	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 12:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 12:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 12:27	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 12:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 12:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 12:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 12:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 12:27	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 12:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 12:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 12:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 12:27	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 12:27	1
Tetrachloroethene	**19**		1.0	0.36	ug/L			11/08/20 12:27	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 12:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 12:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 12:27	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 12:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 12:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 12:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 12:27	1

Client Sample ID: ERM-16-20201026-01
Lab Sample ID: 460-221755-4

Date Collected: 10/26/20 12:20
Matrix: Water
Date Received: 10/29/20 09:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 120		11/08/20 12:27	1
4-Bromofluorobenzene (Surr)	106		73 - 120		11/08/20 12:27	1
Dibromofluoromethane (Surr)	120		75 - 123		11/08/20 12:27	1
Toluene-d8 (Surr)	107		80 - 120		11/08/20 12:27	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorooctanoic acid (PFOA)	**9.8**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	81		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C2 PFDoA	71		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C2 PFHxA	91		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C2 PFTeDA	73		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C2 PFUnA	78		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C3 PFBS	86		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C4 PFHpA	89		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C4 PFOA	85		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C4 PFOS	87		50 - 150	11/03/20 10:57	11/06/20 01:22	1
13C5 PFNA	85		50 - 150	11/03/20 10:57	11/06/20 01:22	1
18O2 PFHxS	84		50 - 150	11/03/20 10:57	11/06/20 01:22	1

Client Sample ID: ERM-8-20201026-01
Lab Sample ID: 460-221755-5

Date Collected: 10/26/20 13:30
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 12:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 12:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 12:51	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 12:51	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 12:51	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 12:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 12:51	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 12:51	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 12:51	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 12:51	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 12:51	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 12:51	1

Client Sample ID: ERM-8-20201026-01
Lab Sample ID: 460-221755-5
Date Collected: 10/26/20 13:30
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 12:51	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 12:51	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 12:51	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 12:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 12:51	1
Acetone	ND		10	3.0	ug/L			11/08/20 12:51	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 12:51	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 12:51	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 12:51	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 12:51	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 12:51	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 12:51	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 12:51	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 12:51	1
Chloroform	ND		1.0	0.34	ug/L			11/08/20 12:51	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 12:51	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 12:51	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 12:51	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 12:51	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 12:51	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 12:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 12:51	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 12:51	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 12:51	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 12:51	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 12:51	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 12:51	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 12:51	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 12:51	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 12:51	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 12:51	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 12:51	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 12:51	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 12:51	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 12:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*11/08/20 12:51*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*11/08/20 12:51*	*1*
Dibromofluoromethane (Surr)	*116*		*75 - 123*		*11/08/20 12:51*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*11/08/20 12:51*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1

Client Sample ID: ERM-8-20201026-01
Lab Sample ID: 460-221755-5

Date Collected: 10/26/20 13:30
Matrix: Water
Date Received: 10/29/20 09:20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorooctanoic acid (PFOA)	**3.4**		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		11/03/20 10:57	11/06/20 01:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*73*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C2 PFDoA	*58*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C2 PFHxA	*94*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C2 PFTeDA	*63*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C2 PFUnA	*67*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C3 PFBS	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C4 PFHpA	*90*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C4 PFOA	*88*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C4 PFOS	*83*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
13C5 PFNA	*87*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*
18O2 PFHxS	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:30*	*1*

Client Sample ID: ERM-12-20201026-01
Lab Sample ID: 460-221755-6

Date Collected: 10/26/20 14:35
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			11/09/20 13:50	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			11/09/20 13:50	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			11/09/20 13:50	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			11/09/20 13:50	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			11/09/20 13:50	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			11/09/20 13:50	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			11/09/20 13:50	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			11/09/20 13:50	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			11/09/20 13:50	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			11/09/20 13:50	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			11/09/20 13:50	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			11/09/20 13:50	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			11/09/20 13:50	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			11/09/20 13:50	4
2-Butanone (MEK)	ND		40	5.3	ug/L			11/09/20 13:50	4
2-Hexanone	ND		20	5.0	ug/L			11/09/20 13:50	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			11/09/20 13:50	4
Acetone	ND		40	12	ug/L			11/09/20 13:50	4
Benzene	ND		4.0	1.6	ug/L			11/09/20 13:50	4
Bromodichloromethane	ND		4.0	1.6	ug/L			11/09/20 13:50	4
Bromoform	ND		4.0	1.0	ug/L			11/09/20 13:50	4
Bromomethane	ND		4.0	2.8	ug/L			11/09/20 13:50	4
Carbon disulfide	ND		4.0	0.76	ug/L			11/09/20 13:50	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			11/09/20 13:50	4

Client Sample ID: ERM-12-20201026-01
Lab Sample ID: 460-221755-6

Date Collected: 10/26/20 14:35
Matrix: Water

Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		4.0	3.0	ug/L			11/09/20 13:50	4
Chloroethane	ND		4.0	1.3	ug/L			11/09/20 13:50	4
Chloroform	ND		4.0	1.4	ug/L			11/09/20 13:50	4
Chloromethane	ND		4.0	1.4	ug/L			11/09/20 13:50	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			11/09/20 13:50	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			11/09/20 13:50	4
Cyclohexane	ND		4.0	0.72	ug/L			11/09/20 13:50	4
Dibromochloromethane	ND		4.0	1.3	ug/L			11/09/20 13:50	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			11/09/20 13:50	4
Ethylbenzene	ND		4.0	3.0	ug/L			11/09/20 13:50	4
Isopropylbenzene	ND		4.0	3.2	ug/L			11/09/20 13:50	4
Methyl acetate	ND		10	5.2	ug/L			11/09/20 13:50	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			11/09/20 13:50	4
Methylcyclohexane	ND		4.0	0.64	ug/L			11/09/20 13:50	4
Methylene Chloride	ND		4.0	1.8	ug/L			11/09/20 13:50	4
Styrene	ND		4.0	2.9	ug/L			11/09/20 13:50	4
Tetrachloroethene	**100**		4.0	1.4	ug/L			11/09/20 13:50	4
Toluene	ND		4.0	2.0	ug/L			11/09/20 13:50	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			11/09/20 13:50	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			11/09/20 13:50	4
Trichloroethene	ND		4.0	1.8	ug/L			11/09/20 13:50	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			11/09/20 13:50	4
Vinyl chloride	ND		4.0	3.6	ug/L			11/09/20 13:50	4
Xylenes, Total	ND		8.0	2.6	ug/L			11/09/20 13:50	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*11/09/20 13:50*	*4*
4-Bromofluorobenzene (Surr)	*85*		*73 - 120*		*11/09/20 13:50*	*4*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*11/09/20 13:50*	*4*
Toluene-d8 (Surr)	*107*		*80 - 120*		*11/09/20 13:50*	*4*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorooctanoic acid (PFOA)	**6.3**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*83*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:38*	*1*
13C2 PFDoA	*65*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:38*	*1*
13C2 PFHxA	*85*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:38*	*1*
13C2 PFTeDA	*65*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:38*	*1*

Client Sample ID: ERM-12-20201026-01
Lab Sample ID: 460-221755-6

Date Collected: 10/26/20 14:35
Matrix: Water
Date Received: 10/29/20 09:20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	78		50 - 150	11/03/20 10:57	11/06/20 01:38	1
13C3 PFBS	85		50 - 150	11/03/20 10:57	11/06/20 01:38	1
13C4 PFHpA	87		50 - 150	11/03/20 10:57	11/06/20 01:38	1
13C4 PFOA	85		50 - 150	11/03/20 10:57	11/06/20 01:38	1
13C4 PFOS	89		50 - 150	11/03/20 10:57	11/06/20 01:38	1
13C5 PFNA	84		50 - 150	11/03/20 10:57	11/06/20 01:38	1
18O2 PFHxS	84		50 - 150	11/03/20 10:57	11/06/20 01:38	1

Client Sample ID: MW-104-20201026-01
Lab Sample ID: 460-221755-7

Date Collected: 10/26/20 15:55
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 13:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 13:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 13:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 13:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 13:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 13:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 13:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 13:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 13:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 13:39	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 13:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 13:39	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 13:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 13:39	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 13:39	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 13:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 13:39	1
Acetone	ND		10	3.0	ug/L			11/08/20 13:39	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 13:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 13:39	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 13:39	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 13:39	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 13:39	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 13:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 13:39	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 13:39	1
Chloroform	**0.81**	**J**	1.0	0.34	ug/L			11/08/20 13:39	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 13:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 13:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 13:39	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 13:39	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 13:39	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 13:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 13:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 13:39	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 13:39	1

Client Sample ID: MW-104-20201026-01
Lab Sample ID: 460-221755-7
Date Collected: 10/26/20 15:55
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 13:39	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 13:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 13:39	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 13:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 13:39	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 13:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 13:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 13:39	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 13:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 13:39	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 13:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*		*11/08/20 13:39*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*11/08/20 13:39*	*1*
Dibromofluoromethane (Surr)	*119*		*75 - 123*		*11/08/20 13:39*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*11/08/20 13:39*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**2.1**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluoroheptanoic acid (PFHpA)	**3.4**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorohexanoic acid (PFHxA)	**3.2**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorooctanesulfonic acid (PFOS)	**2.6**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorooctanoic acid (PFOA)	**33**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 01:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*78*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C2 PFDoA	*67*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C2 PFHxA	*90*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C2 PFTeDA	*66*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C2 PFUnA	*77*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C3 PFBS	*90*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C4 PFHpA	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C4 PFOA	*86*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C4 PFOS	*84*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
13C5 PFNA	*87*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*
18O2 PFHxS	*90*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:47*	*1*

Client: ERM-Northeast
Project/Site: Bennington, VT - Groundwater Analysis

Job ID: 460-221755-1

Client Sample ID: MW-103-20201026-01
Date Collected: 10/26/20 16:50
Date Received: 10/29/20 09:20

Lab Sample ID: 460-221755-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 14:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 14:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 14:02	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 14:02	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 14:02	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 14:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 14:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 14:02	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 14:02	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 14:02	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 14:02	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 14:02	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 14:02	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 14:02	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 14:02	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 14:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 14:02	1
Acetone	ND		10	3.0	ug/L			11/08/20 14:02	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 14:02	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 14:02	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 14:02	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 14:02	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 14:02	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 14:02	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 14:02	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 14:02	1
Chloroform	**0.49**	**J**	1.0	0.34	ug/L			11/08/20 14:02	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 14:02	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 14:02	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 14:02	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 14:02	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 14:02	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 14:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 14:02	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 14:02	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 14:02	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 14:02	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 14:02	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 14:02	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 14:02	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 14:02	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 14:02	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 14:02	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 14:02	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 14:02	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 14:02	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 14:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 14:02	1

Client Sample ID: MW-103-20201026-01
Lab Sample ID: 460-221755-8

Date Collected: 10/26/20 16:50
Matrix: Water
Date Received: 10/29/20 09:20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*		*11/08/20 14:02*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*11/08/20 14:02*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 123*		*11/08/20 14:02*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*11/08/20 14:02*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**1.8**		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluoroheptanoic acid (PFHpA)	**2.0**		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorooctanesulfonic acid (PFOS)	**1.6**		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorooctanoic acid (PFOA)	**29**		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		11/03/20 10:57	11/06/20 01:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*81*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C2 PFDoA	*61*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C2 PFHxA	*85*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C2 PFTeDA	*65*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C2 PFUnA	*73*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C3 PFBS	*84*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C4 PFHpA	*85*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C4 PFOA	*83*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C4 PFOS	*87*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
13C5 PFNA	*85*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*
18O2 PFHxS	*87*		*50 - 150*	*11/03/20 10:57*	*11/06/20 01:55*	*1*

Client Sample ID: DUP-20201026-01
Lab Sample ID: 460-221755-9

Date Collected: 10/26/20 12:00
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			11/08/20 14:26	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			11/08/20 14:26	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			11/08/20 14:26	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			11/08/20 14:26	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			11/08/20 14:26	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			11/08/20 14:26	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			11/08/20 14:26	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			11/08/20 14:26	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			11/08/20 14:26	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			11/08/20 14:26	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			11/08/20 14:26	2

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: DUP-20201026-01
Lab Sample ID: 460-221755-9
Date Collected: 10/26/20 12:00
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		2.0	1.4	ug/L			11/08/20 14:26	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			11/08/20 14:26	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			11/08/20 14:26	2
2-Butanone (MEK)	ND		20	2.6	ug/L			11/08/20 14:26	2
2-Hexanone	ND		10	2.5	ug/L			11/08/20 14:26	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			11/08/20 14:26	2
Acetone	ND		20	6.0	ug/L			11/08/20 14:26	2
Benzene	ND		2.0	0.82	ug/L			11/08/20 14:26	2
Bromodichloromethane	ND		2.0	0.78	ug/L			11/08/20 14:26	2
Bromoform	ND		2.0	0.52	ug/L			11/08/20 14:26	2
Bromomethane	ND		2.0	1.4	ug/L			11/08/20 14:26	2
Carbon disulfide	ND		2.0	0.38	ug/L			11/08/20 14:26	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			11/08/20 14:26	2
Chlorobenzene	ND		2.0	1.5	ug/L			11/08/20 14:26	2
Chloroethane	ND		2.0	0.64	ug/L			11/08/20 14:26	2
Chloroform	ND		2.0	0.68	ug/L			11/08/20 14:26	2
Chloromethane	ND		2.0	0.70	ug/L			11/08/20 14:26	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			11/08/20 14:26	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			11/08/20 14:26	2
Cyclohexane	ND		2.0	0.36	ug/L			11/08/20 14:26	2
Dibromochloromethane	ND		2.0	0.64	ug/L			11/08/20 14:26	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			11/08/20 14:26	2
Ethylbenzene	ND		2.0	1.5	ug/L			11/08/20 14:26	2
Isopropylbenzene	ND		2.0	1.6	ug/L			11/08/20 14:26	2
Methyl acetate	ND		5.0	2.6	ug/L			11/08/20 14:26	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			11/08/20 14:26	2
Methylcyclohexane	ND		2.0	0.32	ug/L			11/08/20 14:26	2
Methylene Chloride	ND		2.0	0.88	ug/L			11/08/20 14:26	2
Styrene	ND		2.0	1.5	ug/L			11/08/20 14:26	2
Tetrachloroethene	**92**		2.0	0.72	ug/L			11/08/20 14:26	2
Toluene	ND		2.0	1.0	ug/L			11/08/20 14:26	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			11/08/20 14:26	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			11/08/20 14:26	2
Trichloroethene	ND		2.0	0.92	ug/L			11/08/20 14:26	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			11/08/20 14:26	2
Vinyl chloride	ND		2.0	1.8	ug/L			11/08/20 14:26	2
Xylenes, Total	ND		4.0	1.3	ug/L			11/08/20 14:26	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*		*11/08/20 14:26*	*2*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*11/08/20 14:26*	*2*
Dibromofluoromethane (Surr)	*119*		*75 - 123*		*11/08/20 14:26*	*2*
Toluene-d8 (Surr)	*106*		*80 - 120*		*11/08/20 14:26*	*2*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1

Client Sample ID: DUP-20201026-01
Lab Sample ID: 460-221755-9

Date Collected: 10/26/20 12:00
Matrix: Water
Date Received: 10/29/20 09:20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorooctanoic acid (PFOA)	**6.7**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*77*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C2 PFDoA	*66*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C2 PFHxA	*88*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C2 PFTeDA	*68*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C2 PFUnA	*72*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C3 PFBS	*91*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C4 PFHpA	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C4 PFOA	*83*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C4 PFOS	*84*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
13C5 PFNA	*84*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*
18O2 PFHxS	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:03*	*1*

Client Sample ID: MW-102-20201027-01
Lab Sample ID: 460-221755-10

Date Collected: 10/27/20 08:25
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 14:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 14:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 14:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 14:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 14:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 14:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 14:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 14:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 14:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 14:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 14:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 14:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 14:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 14:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 14:50	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 14:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 14:50	1
Acetone	ND		10	3.0	ug/L			11/08/20 14:50	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 14:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 14:50	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 14:50	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 14:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 14:50	1

Client Sample ID: MW-102-20201027-01
Lab Sample ID: 460-221755-10
Date Collected: 10/27/20 08:25
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 14:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 14:50	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 14:50	1
Chloroform	ND		1.0	0.34	ug/L			11/08/20 14:50	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 14:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 14:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 14:50	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 14:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 14:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 14:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 14:50	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 14:50	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 14:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 14:50	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 14:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 14:50	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 14:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 14:50	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 14:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 14:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 14:50	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 14:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 14:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 14:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*11/08/20 14:50*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*11/08/20 14:50*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 123*		*11/08/20 14:50*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*11/08/20 14:50*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorooctanoic acid (PFOA)	**3.2**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*79*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:12*	*1*
13C2 PFDoA	*63*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:12*	*1*
13C2 PFHxA	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:12*	*1*

Client Sample ID: MW-102-20201027-01
Lab Sample ID: 460-221755-10

Date Collected: 10/27/20 08:25
Matrix: Water
Date Received: 10/29/20 09:20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	67		50 - 150	11/03/20 10:57	11/06/20 02:12	1
13C2 PFUnA	71		50 - 150	11/03/20 10:57	11/06/20 02:12	1
13C3 PFBS	89		50 - 150	11/03/20 10:57	11/06/20 02:12	1
13C4 PFHpA	87		50 - 150	11/03/20 10:57	11/06/20 02:12	1
13C4 PFOA	85		50 - 150	11/03/20 10:57	11/06/20 02:12	1
13C4 PFOS	85		50 - 150	11/03/20 10:57	11/06/20 02:12	1
13C5 PFNA	84		50 - 150	11/03/20 10:57	11/06/20 02:12	1
18O2 PFHxS	88		50 - 150	11/03/20 10:57	11/06/20 02:12	1

Client Sample ID: MW-10-20201027-01
Lab Sample ID: 460-221755-11

Date Collected: 10/27/20 09:40
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 15:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 15:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 15:14	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 15:14	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 15:14	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 15:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 15:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 15:14	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 15:14	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 15:14	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 15:14	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 15:14	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 15:14	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 15:14	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 15:14	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 15:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 15:14	1
Acetone	ND		10	3.0	ug/L			11/08/20 15:14	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 15:14	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 15:14	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 15:14	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 15:14	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 15:14	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 15:14	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 15:14	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 15:14	1
Chloroform	ND		1.0	0.34	ug/L			11/08/20 15:14	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 15:14	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 15:14	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 15:14	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 15:14	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 15:14	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 15:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 15:14	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 15:14	1

Client Sample ID: MW-10-20201027-01
Lab Sample ID: 460-221755-11
Date Collected: 10/27/20 09:40
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 15:14	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 15:14	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 15:14	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 15:14	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 15:14	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 15:14	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 15:14	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 15:14	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 15:14	1
Trichloroethene	**0.94**	**J**	1.0	0.46	ug/L			11/08/20 15:14	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 15:14	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 15:14	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*		*11/08/20 15:14*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*11/08/20 15:14*	*1*
Dibromofluoromethane (Surr)	*119*		*75 - 123*		*11/08/20 15:14*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*11/08/20 15:14*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorooctanesulfonic acid (PFOS)	**2.3**	**I**	1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorooctanoic acid (PFOA)	**11**		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		11/03/20 10:57	11/06/20 02:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*81*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C2 PFDoA	*65*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C2 PFHxA	*84*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C2 PFTeDA	*69*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C2 PFUnA	*79*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C3 PFBS	*89*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C4 PFHpA	*85*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C4 PFOA	*86*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C4 PFOS	*85*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
13C5 PFNA	*82*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*
18O2 PFHxS	*92*		*50 - 150*	*11/03/20 10:57*	*11/06/20 02:20*	*1*

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: TB-20201027-01
Lab Sample ID: 460-221755-12
Date Collected: 10/27/20 00:00
Matrix: Water
Date Received: 10/29/20 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 15:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 15:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 15:38	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 15:38	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 15:38	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 15:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 15:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 15:38	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 15:38	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 15:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 15:38	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 15:38	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 15:38	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 15:38	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 15:38	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 15:38	1
Acetone	ND		10	3.0	ug/L			11/08/20 15:38	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 15:38	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 15:38	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 15:38	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 15:38	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 15:38	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 15:38	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 15:38	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 15:38	1
Chloroform	ND		1.0	0.34	ug/L			11/08/20 15:38	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 15:38	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 15:38	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 15:38	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 15:38	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 15:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 15:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 15:38	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 15:38	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 15:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 15:38	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 15:38	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 15:38	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 15:38	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 15:38	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 15:38	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 15:38	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 15:38	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 15:38	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 15:38	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 15:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 15:38	1

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: TB-20201027-01
Lab Sample ID: 460-221755-12
Date Collected: 10/27/20 00:00
Matrix: Water
Date Received: 10/29/20 09:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 120		11/08/20 15:38	1
4-Bromofluorobenzene (Surr)	105		73 - 120		11/08/20 15:38	1
Dibromofluoromethane (Surr)	118		75 - 123		11/08/20 15:38	1
Toluene-d8 (Surr)	107		80 - 120		11/08/20 15:38	1

Surrogate Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
460-221755-3	RB01-20201026-01	115	108	117	106
460-221755-4	ERM-16-20201026-01	116	106	120	107
460-221755-5	ERM-8-20201026-01	114	101	116	107
460-221755-6	ERM-12-20201026-01	111	85	108	107
460-221755-7	MW-104-20201026-01	117	106	119	107
460-221755-8	MW-103-20201026-01	117	103	118	104
460-221755-9	DUP-20201026-01	117	106	119	106
460-221755-10	MW-102-20201027-01	114	105	114	107
460-221755-11	MW-10-20201027-01	116	108	119	105
460-221755-12	TB-20201027-01	116	105	118	107
LCS 480-557992/5	Lab Control Sample	116	109	120	108
LCS 480-558068/5	Lab Control Sample	102	91	101	111
MB 480-557992/7	Method Blank	116	103	117	106
MB 480-558068/7	Method Blank	105	85	104	106

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDA (50-150)	PFDoA (50-150)	PFHxA (50-150)	PFTDA (50-150)	PFUnA (50-150)	C3PFBS (50-150)	C4PFHA (50-150)	PFOA (50-150)
460-221755-1	EB01-20201026-01	87	80	94	62	87	89	89	89
460-221755-2	EB02-20201026-01	92	77	90	68	92	91	92	87
460-221755-3	RB01-20201026-01	92	75	88	62	92	93	91	85
460-221755-4	ERM-16-20201026-01	81	71	91	73	78	86	89	85
460-221755-5	ERM-8-20201026-01	73	58	94	63	67	92	90	88
460-221755-6	ERM-12-20201026-01	83	65	85	65	78	85	87	85
460-221755-7	MW-104-20201026-01	78	67	90	66	77	90	92	86
460-221755-8	MW-103-20201026-01	81	61	85	65	73	84	85	83
460-221755-9	DUP-20201026-01	77	66	88	68	72	91	89	83
460-221755-10	MW-102-20201027-01	79	63	89	67	71	89	87	85
460-221755-11	MW-10-20201027-01	81	65	84	69	79	89	85	86
LCS 200-160748/2-A	Lab Control Sample	90	79	88	68	91	89	88	86
MB 200-160748/1-A	Method Blank	94	88	94	78	94	93	91	90

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	PFOS (50-150)	PFNA (50-150)	PFHxS (50-150)
460-221755-1	EB01-20201026-01	88	86	89
460-221755-2	EB02-20201026-01	92	90	92
460-221755-3	RB01-20201026-01	92	89	90
460-221755-4	ERM-16-20201026-01	87	85	84
460-221755-5	ERM-8-20201026-01	83	87	92
460-221755-6	ERM-12-20201026-01	89	84	84
460-221755-7	MW-104-20201026-01	84	87	90
460-221755-8	MW-103-20201026-01	87	85	87
460-221755-9	DUP-20201026-01	84	84	92
460-221755-10	MW-102-20201027-01	85	84	88
460-221755-11	MW-10-20201027-01	85	82	92
LCS 200-160748/2-A	Lab Control Sample	91	87	91
MB 200-160748/1-A	Method Blank	92	89	94

Surrogate Legend

PFDA = 13C2 PFDA
PFDoA = 13C2 PFDoA
PFHxA = 13C2 PFHxA
PFTDA = 13C2 PFTeDA
PFUnA = 13C2 PFUnA
C3PFBS = 13C3 PFBS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFHxS = 18O2 PFHxS

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-557992/7
Matrix: Water
Analysis Batch: 557992

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/08/20 11:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/08/20 11:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/08/20 11:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/08/20 11:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/08/20 11:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/08/20 11:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/08/20 11:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/08/20 11:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/08/20 11:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/08/20 11:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/08/20 11:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/08/20 11:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/08/20 11:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/08/20 11:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/08/20 11:26	1
2-Hexanone	ND		5.0	1.2	ug/L			11/08/20 11:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/08/20 11:26	1
Acetone	ND		10	3.0	ug/L			11/08/20 11:26	1
Benzene	ND		1.0	0.41	ug/L			11/08/20 11:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/08/20 11:26	1
Bromoform	ND		1.0	0.26	ug/L			11/08/20 11:26	1
Bromomethane	ND		1.0	0.69	ug/L			11/08/20 11:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/08/20 11:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/08/20 11:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/08/20 11:26	1
Chloroethane	ND		1.0	0.32	ug/L			11/08/20 11:26	1
Chloroform	ND		1.0	0.34	ug/L			11/08/20 11:26	1
Chloromethane	ND		1.0	0.35	ug/L			11/08/20 11:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/08/20 11:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/08/20 11:26	1
Cyclohexane	ND		1.0	0.18	ug/L			11/08/20 11:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/08/20 11:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/08/20 11:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/08/20 11:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/08/20 11:26	1
Methyl acetate	ND		2.5	1.3	ug/L			11/08/20 11:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/08/20 11:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/08/20 11:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/08/20 11:26	1
Styrene	ND		1.0	0.73	ug/L			11/08/20 11:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/08/20 11:26	1
Toluene	ND		1.0	0.51	ug/L			11/08/20 11:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/08/20 11:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/08/20 11:26	1
Trichloroethene	ND		1.0	0.46	ug/L			11/08/20 11:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/08/20 11:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/08/20 11:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/08/20 11:26	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-557992/7
Matrix: Water
Analysis Batch: 557992

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 120		11/08/20 11:26	1
4-Bromofluorobenzene (Surr)	103		73 - 120		11/08/20 11:26	1
Dibromofluoromethane (Surr)	117		75 - 123		11/08/20 11:26	1
Toluene-d8 (Surr)	106		80 - 120		11/08/20 11:26	1

Lab Sample ID: LCS 480-557992/5
Matrix: Water
Analysis Batch: 557992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.6		ug/L		99	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.6		ug/L		98	61 - 148
1,1,2-Trichloroethane	25.0	24.6		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	25.6		ug/L		102	77 - 120
1,1-Dichloroethene	25.0	23.1		ug/L		92	66 - 127
1,2,4-Trichlorobenzene	25.0	23.2		ug/L		93	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	19.8		ug/L		79	56 - 134
1,2-Dibromoethane	25.0	25.3		ug/L		101	77 - 120
1,2-Dichlorobenzene	25.0	23.2		ug/L		93	80 - 124
1,2-Dichloroethane	25.0	26.3		ug/L		105	75 - 120
1,2-Dichloropropane	25.0	27.3		ug/L		109	76 - 120
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	77 - 120
1,4-Dichlorobenzene	25.0	23.7		ug/L		95	80 - 120
2-Butanone (MEK)	125	137		ug/L		110	57 - 140
2-Hexanone	125	124		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	71 - 125
Acetone	125	115		ug/L		92	56 - 142
Benzene	25.0	26.9		ug/L		107	71 - 124
Bromodichloromethane	25.0	26.2		ug/L		105	80 - 122
Bromoform	25.0	21.6		ug/L		87	61 - 132
Bromomethane	25.0	21.1		ug/L		84	55 - 144
Carbon disulfide	25.0	22.9		ug/L		92	59 - 134
Carbon tetrachloride	25.0	23.2		ug/L		93	72 - 134
Chlorobenzene	25.0	24.5		ug/L		98	80 - 120
Chloroethane	25.0	20.3		ug/L		81	69 - 136
Chloroform	25.0	25.4		ug/L		101	73 - 127
Chloromethane	25.0	21.6		ug/L		86	68 - 124
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	74 - 124
cis-1,3-Dichloropropene	25.0	26.9		ug/L		108	74 - 124
Cyclohexane	25.0	25.2		ug/L		101	59 - 135
Dibromochloromethane	25.0	22.8		ug/L		91	75 - 125
Dichlorodifluoromethane	25.0	27.8		ug/L		111	59 - 135
Ethylbenzene	25.0	23.4		ug/L		94	77 - 123
Isopropylbenzene	25.0	22.9		ug/L		92	77 - 122
Methyl acetate	50.0	53.9		ug/L		108	74 - 133
Methyl tert-butyl ether	25.0	25.0		ug/L		100	77 - 120
Methylcyclohexane	25.0	25.4		ug/L		102	68 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-557992/5
Matrix: Water
Analysis Batch: 557992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	25.0	24.8		ug/L		99	75 - 124
Styrene	25.0	24.6		ug/L		99	80 - 120
Tetrachloroethene	25.0	24.6		ug/L		98	74 - 122
Toluene	25.0	23.3		ug/L		93	80 - 122
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	73 - 127
trans-1,3-Dichloropropene	25.0	23.6		ug/L		94	80 - 120
Trichloroethene	25.0	27.4		ug/L		110	74 - 123
Trichlorofluoromethane	25.0	22.9		ug/L		91	62 - 150
Vinyl chloride	25.0	21.2		ug/L		85	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*
Dibromofluoromethane (Surr)	*120*		*75 - 123*
Toluene-d8 (Surr)	*108*		*80 - 120*

Lab Sample ID: MB 480-558068/7
Matrix: Water
Analysis Batch: 558068

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/09/20 11:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/09/20 11:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/09/20 11:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/09/20 11:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/09/20 11:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/09/20 11:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/09/20 11:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/09/20 11:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/09/20 11:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/09/20 11:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/09/20 11:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/09/20 11:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/09/20 11:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/09/20 11:16	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/09/20 11:16	1
2-Hexanone	ND		5.0	1.2	ug/L			11/09/20 11:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/09/20 11:16	1
Acetone	ND		10	3.0	ug/L			11/09/20 11:16	1
Benzene	ND		1.0	0.41	ug/L			11/09/20 11:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/09/20 11:16	1
Bromoform	ND		1.0	0.26	ug/L			11/09/20 11:16	1
Bromomethane	ND		1.0	0.69	ug/L			11/09/20 11:16	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/09/20 11:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/09/20 11:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/09/20 11:16	1
Chloroethane	ND		1.0	0.32	ug/L			11/09/20 11:16	1
Chloroform	ND		1.0	0.34	ug/L			11/09/20 11:16	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-558068/7
Matrix: Water
Analysis Batch: 558068

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.35	ug/L			11/09/20 11:16	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/09/20 11:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/09/20 11:16	1
Cyclohexane	ND		1.0	0.18	ug/L			11/09/20 11:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/09/20 11:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/09/20 11:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/09/20 11:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/09/20 11:16	1
Methyl acetate	ND		2.5	1.3	ug/L			11/09/20 11:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/09/20 11:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/09/20 11:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/09/20 11:16	1
Styrene	ND		1.0	0.73	ug/L			11/09/20 11:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/09/20 11:16	1
Toluene	ND		1.0	0.51	ug/L			11/09/20 11:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/09/20 11:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/09/20 11:16	1
Trichloroethene	ND		1.0	0.46	ug/L			11/09/20 11:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/09/20 11:16	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/09/20 11:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/09/20 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*11/09/20 11:16*	*1*
4-Bromofluorobenzene (Surr)	*85*		*73 - 120*		*11/09/20 11:16*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*11/09/20 11:16*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*11/09/20 11:16*	*1*

Lab Sample ID: LCS 480-558068/5
Matrix: Water
Analysis Batch: 558068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.4		ug/L		102	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.0		ug/L		100	61 - 148
1,1,2-Trichloroethane	25.0	24.6		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	23.9		ug/L		96	77 - 120
1,1-Dichloroethene	25.0	24.4		ug/L		98	66 - 127
1,2,4-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	27.5		ug/L		110	56 - 134
1,2-Dibromoethane	25.0	23.8		ug/L		95	77 - 120
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	24.7		ug/L		99	75 - 120
1,2-Dichloropropane	25.0	24.7		ug/L		99	76 - 120
1,3-Dichlorobenzene	25.0	23.6		ug/L		94	77 - 120
1,4-Dichlorobenzene	25.0	22.6		ug/L		90	80 - 120
2-Butanone (MEK)	125	134		ug/L		107	57 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-558068/5
Matrix: Water
Analysis Batch: 558068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	125	128		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	125	141		ug/L		113	71 - 125
Acetone	125	150		ug/L		120	56 - 142
Benzene	25.0	24.1		ug/L		96	71 - 124
Bromodichloromethane	25.0	25.9		ug/L		103	80 - 122
Bromoform	25.0	24.6		ug/L		98	61 - 132
Bromomethane	25.0	23.3		ug/L		93	55 - 144
Carbon disulfide	25.0	23.5		ug/L		94	59 - 134
Carbon tetrachloride	25.0	27.4		ug/L		110	72 - 134
Chlorobenzene	25.0	22.9		ug/L		91	80 - 120
Chloroethane	25.0	24.1		ug/L		96	69 - 136
Chloroform	25.0	23.2		ug/L		93	73 - 127
Chloromethane	25.0	22.6		ug/L		91	68 - 124
cis-1,2-Dichloroethene	25.0	23.7		ug/L		95	74 - 124
cis-1,3-Dichloropropene	25.0	24.4		ug/L		98	74 - 124
Cyclohexane	25.0	25.3		ug/L		101	59 - 135
Dibromochloromethane	25.0	27.2		ug/L		109	75 - 125
Dichlorodifluoromethane	25.0	20.3		ug/L		81	59 - 135
Ethylbenzene	25.0	23.7		ug/L		95	77 - 123
Isopropylbenzene	25.0	25.8		ug/L		103	77 - 122
Methyl acetate	50.0	50.1		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	24.0		ug/L		96	77 - 120
Methylcyclohexane	25.0	25.0		ug/L		100	68 - 134
Methylene Chloride	25.0	25.2		ug/L		101	75 - 124
Styrene	25.0	22.3		ug/L		89	80 - 120
Tetrachloroethene	25.0	25.6		ug/L		102	74 - 122
Toluene	25.0	25.3		ug/L		101	80 - 122
trans-1,2-Dichloroethene	25.0	23.9		ug/L		96	73 - 127
trans-1,3-Dichloropropene	25.0	25.4		ug/L		102	80 - 120
Trichloroethene	25.0	24.1		ug/L		96	74 - 123
Trichlorofluoromethane	25.0	24.9		ug/L		100	62 - 150
Vinyl chloride	25.0	22.7		ug/L		91	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*
Toluene-d8 (Surr)	*111*		*80 - 120*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-160748/1-A
Matrix: Water
Analysis Batch: 160876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 160748

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorodecanoic acid (PFDA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-160748/1-A
Matrix: Water
Analysis Batch: 160876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 160748

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorononanoic acid (PFNA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorooctanoic acid (PFOA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	2.0	ng/L		11/03/20 10:57	11/05/20 23:26	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*94*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C2 PFDoA	*88*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C2 PFHxA	*94*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C2 PFTeDA	*78*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C2 PFUnA	*94*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C3 PFBS	*93*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C4 PFHpA	*91*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C4 PFOA	*90*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C4 PFOS	*92*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
13C5 PFNA	*89*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*
18O2 PFHxS	*94*		*50 - 150*	*11/03/20 10:57*	*11/05/20 23:26*	*1*

Lab Sample ID: LCS 200-160748/2-A
Matrix: Water
Analysis Batch: 160876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 160748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanesulfonic acid (PFBS)	35.4	35.0		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	40.8		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	38.2		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.2		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	38.4		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	40.0	39.3		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	35.3		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	39.5		ng/L		99	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	42.2		ng/L		105	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	38.3		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	37.4		ng/L		93	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFDA	*90*		*50 - 150*
13C2 PFDoA	*79*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-160748/2-A
Matrix: Water
Analysis Batch: 160876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 160748

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFHxA	88		50 - 150
13C2 PFTeDA	68		50 - 150
13C2 PFUnA	91		50 - 150
13C3 PFBS	89		50 - 150
13C4 PFHpA	88		50 - 150
13C4 PFOA	86		50 - 150
13C4 PFOS	91		50 - 150
13C5 PFNA	87		50 - 150
18O2 PFHxS	91		50 - 150

QC Association Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

GC/MS VOA

Analysis Batch: 557992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221755-3	RB01-20201026-01	Total/NA	Water	8260C	
460-221755-4	ERM-16-20201026-01	Total/NA	Water	8260C	
460-221755-5	ERM-8-20201026-01	Total/NA	Water	8260C	
460-221755-7	MW-104-20201026-01	Total/NA	Water	8260C	
460-221755-8	MW-103-20201026-01	Total/NA	Water	8260C	
460-221755-9	DUP-20201026-01	Total/NA	Water	8260C	
460-221755-10	MW-102-20201027-01	Total/NA	Water	8260C	
460-221755-11	MW-10-20201027-01	Total/NA	Water	8260C	
460-221755-12	TB-20201027-01	Total/NA	Water	8260C	
MB 480-557992/7	Method Blank	Total/NA	Water	8260C	
LCS 480-557992/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 558068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221755-6	ERM-12-20201026-01	Total/NA	Water	8260C	
MB 480-558068/7	Method Blank	Total/NA	Water	8260C	
LCS 480-558068/5	Lab Control Sample	Total/NA	Water	8260C	

LCMS

Prep Batch: 160748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221755-1	EB01-20201026-01	Total/NA	Water	3535	
460-221755-2	EB02-20201026-01	Total/NA	Water	3535	
460-221755-3	RB01-20201026-01	Total/NA	Water	3535	
460-221755-4	ERM-16-20201026-01	Total/NA	Water	3535	
460-221755-5	ERM-8-20201026-01	Total/NA	Water	3535	
460-221755-6	ERM-12-20201026-01	Total/NA	Water	3535	
460-221755-7	MW-104-20201026-01	Total/NA	Water	3535	
460-221755-8	MW-103-20201026-01	Total/NA	Water	3535	
460-221755-9	DUP-20201026-01	Total/NA	Water	3535	
460-221755-10	MW-102-20201027-01	Total/NA	Water	3535	
460-221755-11	MW-10-20201027-01	Total/NA	Water	3535	
MB 200-160748/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-160748/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 160876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221755-1	EB01-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-2	EB02-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-3	RB01-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-4	ERM-16-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-5	ERM-8-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-6	ERM-12-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-7	MW-104-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-8	MW-103-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-9	DUP-20201026-01	Total/NA	Water	537 (modified)	160748
460-221755-10	MW-102-20201027-01	Total/NA	Water	537 (modified)	160748
460-221755-11	MW-10-20201027-01	Total/NA	Water	537 (modified)	160748
MB 200-160748/1-A	Method Blank	Total/NA	Water	537 (modified)	160748
LCS 200-160748/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	160748

Lab Chronicle

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Client Sample ID: EB01-20201026-01
Lab Sample ID: 460-221755-1
Date Collected: 10/26/20 09:00
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 00:49	ND	TAL BUR

Client Sample ID: EB02-20201026-01
Lab Sample ID: 460-221755-2
Date Collected: 10/26/20 09:10
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 00:57	ND	TAL BUR

Client Sample ID: RB01-20201026-01
Lab Sample ID: 460-221755-3
Date Collected: 10/26/20 09:20
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 12:03	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 01:14	ND	TAL BUR

Client Sample ID: ERM-16-20201026-01
Lab Sample ID: 460-221755-4
Date Collected: 10/26/20 12:20
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 12:27	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 01:22	ND	TAL BUR

Client Sample ID: ERM-8-20201026-01
Lab Sample ID: 460-221755-5
Date Collected: 10/26/20 13:30
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 12:51	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 01:30	ND	TAL BUR

Client Sample ID: ERM-12-20201026-01
Lab Sample ID: 460-221755-6
Date Collected: 10/26/20 14:35
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	558068	11/09/20 13:50	LCH	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 01:38	ND	TAL BUR

Client Sample ID: MW-104-20201026-01
Lab Sample ID: 460-221755-7
Date Collected: 10/26/20 15:55
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 13:39	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 01:47	ND	TAL BUR

Client Sample ID: MW-103-20201026-01
Lab Sample ID: 460-221755-8
Date Collected: 10/26/20 16:50
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 14:02	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 01:55	ND	TAL BUR

Client Sample ID: DUP-20201026-01
Lab Sample ID: 460-221755-9
Date Collected: 10/26/20 12:00
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	557992	11/08/20 14:26	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 02:03	ND	TAL BUR

Client Sample ID: MW-102-20201027-01
Lab Sample ID: 460-221755-10
Date Collected: 10/27/20 08:25
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 14:50	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 02:12	ND	TAL BUR

Client Sample ID: MW-10-20201027-01
Lab Sample ID: 460-221755-11
Date Collected: 10/27/20 09:40
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 15:14	RJF	TAL BUF
Total/NA	Prep	3535			160748	11/03/20 10:57	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160876	11/06/20 02:20	ND	TAL BUR

Client Sample ID: TB-20201027-01
Lab Sample ID: 460-221755-12
Date Collected: 10/27/20 00:00
Matrix: Water
Date Received: 10/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557992	11/08/20 15:38	RJF	TAL BUF

Lab Chronicle

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Laboratory: Eurofins TestAmerica, Buffalo

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	88-0686	07-07-21
California	State	2931	04-01-20 *
Connecticut	State	PH-0568	09-30-20 *
Florida	NELAP	E87672	07-01-21
Georgia	State	10026 (NY)	04-01-21
Georgia	State Program	N/A	03-31-09 *
Georgia (DW)	State	956	04-01-21
Illinois	NELAP	200003	10-01-21
Iowa	State	374	02-28-21
Kansas	NELAP	E-10187	02-01-21
Kentucky (DW)	State	90029	12-31-20
Kentucky (UST)	State	30	04-01-21
Kentucky (WW)	State	KY90029	12-31-20
Louisiana	NELAP	02031	07-01-21
Maine	State	NY00044	12-04-20
Maryland	State	294	04-01-21
Massachusetts	State	M-NY044	06-30-21
Michigan	State	9937	04-01-21
Michigan	State Program	9937	04-01-09 *
Minnesota	NELAP	1524384	12-31-20
New Hampshire	NELAP	2337	11-18-20
New Jersey	NELAP	NY455	06-30-21
New York	NELAP	10026	04-01-21
North Dakota	State	R-176	04-01-21
Oklahoma	State	9421	09-02-21
Oregon	NELAP	NY200003	06-11-21
Pennsylvania	NELAP	68-00281	07-31-21
Rhode Island	State	LAO00328	12-30-20
Tennessee	State	02970	04-01-21
Texas	NELAP	T104704412-18-10	08-02-21
USDA	US Federal Programs	P330-18-00039	02-06-21
Virginia	NELAP	460185	09-14-21
Washington	State	C784	02-11-21
Wisconsin	State	998310390	09-01-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-20
New Hampshire	NELAP	2006	12-18-20
New Jersey	NELAP	VT972	06-30-21
New York	NELAP	10391	04-01-21
Pennsylvania	NELAP	68-00489	04-30-21
Rhode Island	State	LAO00298	12-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	12-31-20
Virginia	NELAP	460209	12-14-20
Wisconsin	State	399133350	08-31-21

Method Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
5030C	Purge and Trap	SW846	TAL BUF

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:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: ERM-Northeast
Job ID: 460-221755-1
Project/Site: Bennington, VT - Groundwater Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-221755-1	EB01-20201026-01	Water	10/26/20 09:00	10/29/20 09:20	
460-221755-2	EB02-20201026-01	Water	10/26/20 09:10	10/29/20 09:20	
460-221755-3	RB01-20201026-01	Water	10/26/20 09:20	10/29/20 09:20	
460-221755-4	ERM-16-20201026-01	Water	10/26/20 12:20	10/29/20 09:20	
460-221755-5	ERM-8-20201026-01	Water	10/26/20 13:30	10/29/20 09:20	
460-221755-6	ERM-12-20201026-01	Water	10/26/20 14:35	10/29/20 09:20	
460-221755-7	MW-104-20201026-01	Water	10/26/20 15:55	10/29/20 09:20	
460-221755-8	MW-103-20201026-01	Water	10/26/20 16:50	10/29/20 09:20	
460-221755-9	DUP-20201026-01	Water	10/26/20 12:00	10/29/20 09:20	
460-221755-10	MW-102-20201027-01	Water	10/27/20 08:25	10/29/20 09:20	
460-221755-11	MW-10-20201027-01	Water	10/27/20 09:40	10/29/20 09:20	
460-221755-12	TB-20201027-01	Water	10/27/20 00:00	10/29/20 09:20	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817-2859
phone 732.549.3900 fax 732.549.3679

Chain of Custody Record

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: ☑ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	**Project Manager: Jason Hnatko**		COC No:
ERM Consulting & Engineering, Inc.	**Email:** jason.hnatko@erm.com	**Site Contact: Katherine Popyack**	**Date:** 27 October 2020	1 of 2 COCs
One Beacon Street, 5th Floor	**Sampler Phone:** (315) 559-2658	**Lab Contact:**	**Carrier:**	TALS Project #:
Boston, MA 02108	**Analysis Turnaround Time**			Sampler:
(617) 838-0499 Phone	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
	TAT if different from Below _____			Walk-in Client:
Project Name: Energizer --Bennington VT	☑ 2 weeks			Lab Sampling:
Site: Bennington, VT	☐ 1 week			Job / SDG No.: 221755
P O #	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs using 8260C	PFAS using 537.1	Sample Specific Notes:
EB01-20201026-01	10/26/2020	9:00	G	Water	2	N	N		X	1
EB02-20201026-01	10/26/2020	9:10	G	Water	2	N	N		X	2
RB01-20201026-01	10/26/2020	9:20	G	Water	5	N	N	X	X	3
ERM-16-20201026-01	10/26/2020	12:20	G	Water	5	N	N	X	X	4
ERM-8-20201026-01	10/26/2020	13:30	G	Water	5	N	N	X	X	5
ERM-12-20201026-01	10/26/2020	14:35	G	Water	5	N	N	X	X	6
MW-104-20201026-01	10/26/2020	15:55	G	Water	5	N	N	X	X	7
MW-103-20201026-01	10/26/2020	16:50	G	Water	5	N	N	X	X	8
DUP-20201026-01	10/26/2020	12:00	G	Water	5	N	N	X	X	9
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other MeOH/DI								1,2	1	

EPH

460-221755 Chain of Custody

Syracuse #225

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Project number: 0529121
FIRMS#PEAS → BVT; BAL → EDSN-RE
CST 1402066 2.2 · I n

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company: ERM	Date/Time: 10/27/2020 1300	Received by:	Company: ES-SYR	Date/Time: 10/27/20 1800
Relinquished by:	Company: Eurofins 10/27/20, 1900	Date/Time:	Received by:	Company: FE	Date/Time: 10/28/20 9:20
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.33, dated 5/4/2020

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817-2859
phone 732.549.3900 fax 732.549.3679

Chain of Custody Record

eurofins Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: ☑ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	**Project Manager: Jason Hnatko**		COC No:
ERM Consulting & Engineering, Inc.	**Email:** jason.hnatko@erm.com	**Site Contact: Katherine Popyack**	**Date:** 27 October 2020 — 1 of 2 COCs
One Beacon Street, 5th Floor	**Sampler Phone:** (315)559-2658	**Lab Contact:**	**Carrier:** — TALS Project #:
Boston, MA 02108	**Analysis Turnaround Time**		Sampler:
(617) 838-0499 Phone	☑ CALENDAR DAYS ☐ WORKING DAYS		**For Lab Use Only:**
	TAT if different from Below _____		Walk-in Client:
Project Name: Energizer --Bennington VT	☑ 2 weeks		Lab Sampling:
Site: Bennington, VT	☐ 1 week		Job / SDG No.: 221755
P O #	☐ 2 days		
	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs using 8260C	PFAS using 537.1	Sample Specific Notes:
MW-102-20201027-01	10/27/2020	8:25	G	Water	5	N	N	X	X	10
MW-101-20201027-01	10/27/2020	9:40	G	Water	5	N	N	X	X	11
TB-20201027-01	10/27/2020	12:00	G	Water	2	N	N	X	X	12
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other MeOH/DI								1,2	1	

Syracuse #225

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Project number: 0529121
FROM SYR PFAS → BVT; BAL → EDSN. - RE

Custody Seals Intact: ☐ Yes ☐ No — Custody Seal No.: — Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ — Therm ID No.: _____

Relinquished by:	Company: ERM	Date/Time: 10/28/2020 1500	Received by:	Company: SYR	Date/Time: 10/27/20 1800
Relinquished by:	Company: SYR 10.27.20	Date/Time: 1900	Received by:	Company: FX	Date/Time: 10/27/20
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 09:20

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 221755

Number of Coolers: 1 **IR Gun #** 11

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.2 °C	2.2 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: JD **Date:** 10/30/20

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817-2859
phone 732.549.3900 fax 732.549.3679

Chain of Custody Record

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: ☑DW ☐NPDES ☐RCRA ☐Other:

Client Contact	**Project Manager:** Jason Hnatko	**Site Contact:** Katherine Popyack	**Date:** 27 October 2020
ERM Consulting & Engineering, Inc.	**Email:** jason.hnatko@erm.com	**Lab Contact:**	**Carrier:**
One Beacon Street, 5th Floor	**Sampler Phone:** (315) 559-2658		
Boston, MA 02108	**Analysis Turnaround Time**		
(617) 838-0499 Phone	☑CALENDAR DAYS ☐WORKING DAYS		
	TAT if different from Below _____		
Project Name: Energizer --Bennington VT	☑ 2 weeks		
Site: Bennington, VT	☐ 1 week		
P O #	☐ 2 days		
	☐ 1 day		

460-221755 Chain of Custody

COC No: 1 of 2 COCs
TALS Project #:
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs using 8260C	PFAS using 537.1	Sample Specific Notes:
EB01-20201026-01	10/26/2020	9:00	G	Water	2	N	N		X	
EB02-20201026-01	10/26/2020	9:10	G	Water	2	N	N		X	
RB01-20201026-01	10/26/2020	9:20	G	Water	5	N	N	X	X	
ERM-16-20201026-01	10/26/2020	12:20	G	Water	5	N	N	X	X	
ERM-8-20201026-01	10/26/2020	13:30	G	Water	5	N	N	X	X	
ERM-12-20201026-01	10/26/2020	14:35	G	Water	5	N	N	X	X	
MW-104-20201026-01	10/26/2020	15:55	G	Water	5	N	N	X	X	
MW-103-20201026-01	10/26/2020	16:50	G	Water	5	N	N	X	X	
DUP-20201026-01	10/26/2020	12:00	G	Water	5	N	N	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other MeOH/DI								1,2	1	

Syracuse #225

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☑Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☑Disposal by Lab ☐Archive for _____ Months

Project number: 0529121
From SYRACUSE → BVT; BAL → EDSN - RE

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: | Corr'd: | Therm ID No.:

Relinquished by:	Company: ERM	Date/Time: 10/27/2020 1800	Received by:	Company: ES-SYR	Date/Time: 10/27/20 1800
Relinquished by:	Company: Eyre	Date/Time: 10/27/20, 1900	Received by:	Company: TABR	Date/Time: 10/28/20 10:25
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.33, dated 5/4/2020

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817-2859
phone 732.549.3900 fax 732.549.3679

Chain of Custody Record

eurofins | Environment Testing | TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: ☑DW ☐NPDES ☐RCRA ☐Other:

Client Contact	**Project Manager: Jason Hnatko**		COC No:
ERM Consulting & Engineering, Inc.	**Email:** jason.hnatko@erm.com	**Site Contact: Katherine Popyack**	**Date:** 27 October 2020 — 1 of 2 COCs
One Beacon Street, 5th Floor	**Sampler Phone:** (315)559-2658	**Lab Contact:**	**Carrier:** — TALS Project #:
Boston, MA 02108	**Analysis Turnaround Time** ☑CALENDAR DAYS ☐WORKING DAYS		Sampler:
(617) 838-0499 Phone	TAT if different from Below ____ ☑2 weeks ☐1 week ☐2 days ☐1 day		**For Lab Use Only:** Walk-in Client: Lab Sampling:
Project Name: Energizer –Bennington VT			Job / SDG No.:
Site: Bennington, VT			
P O #			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs using 8260C	PFAS using 537.1	Sample Specific Notes:
MW-102-20201027-01	10/27/2020	8:25	G	Water	5	N	N	X	X	
MW-101-20201027-01	10/27/2020	9:40	G	Water	5	N	N	X	X	
TB-20201027-01	10/27/2020	12:00	G	Water	2	N	N	X	X	
			KP							

Syracuse #225

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other MeOH/DI — 1,2 — 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☑Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

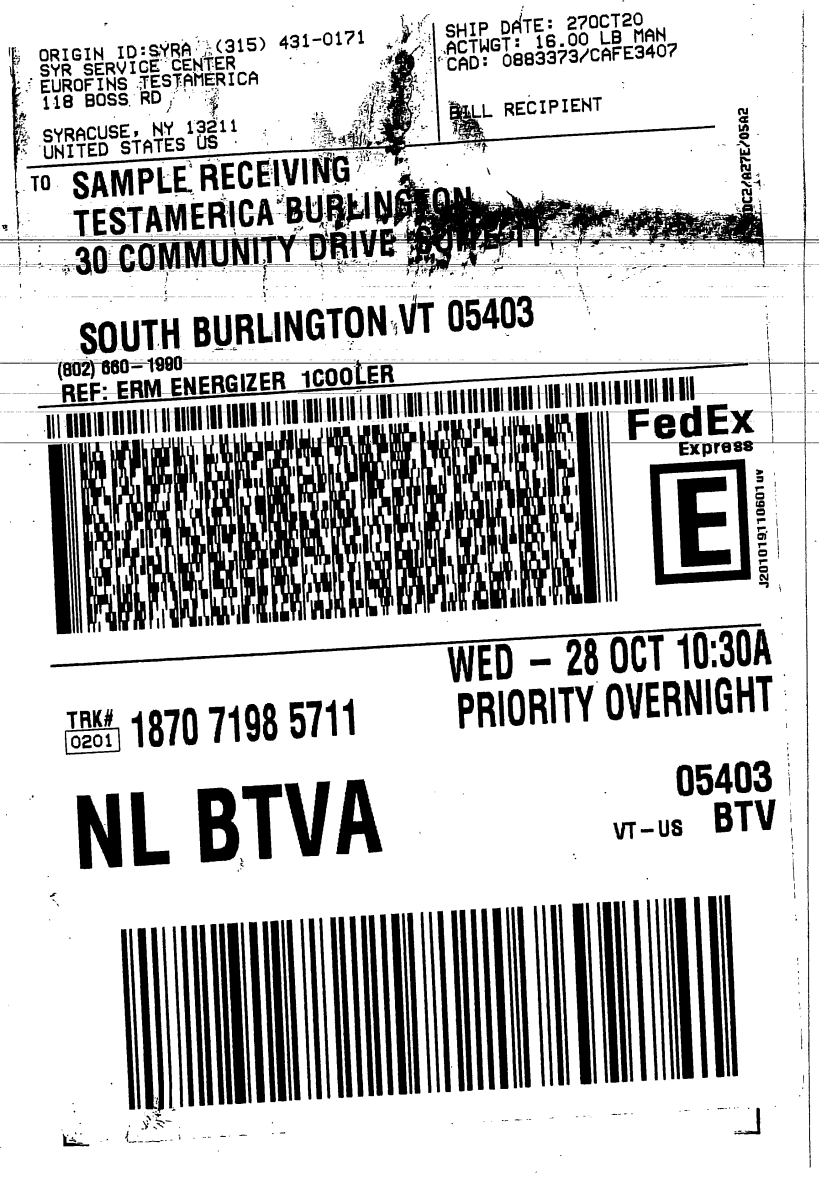
☐Return to Client ☑Disposal by Lab ☐Archive for____ Months

Project number: 0529121
From SYRPFAS → BVT, BAL → EDSN, -RE

Custody Seals Intact: ☐Yes ☐No — Custody Seal No.: — Cooler Temp. (°C): Obs'd: — Corr'd: — Therm ID No.:

Relinquished by:	Company: ERM	Date/Time: 10/27/2020 1500	Received by:	Company: ES-SYR	Date/Time: 10/27/20 1800
Relinquished by:	Company: Eyn	Date/Time: 10.27.20 1900	Received by:	Company: TABUR1	Date/Time: 10/28/2020 10:55
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.33, dated 5/4/2020


ORIGIN ID:SYRA (315) 431-0171
SYR SERVICE CENTER
EUROFINS TESTAMERICA
118 BOSS RD

SYRACUSE, NY 13211
UNITED STATES US

SHIP DATE: 27OCT20
ACTWGT: 16.00 LB MAN
CAD: 0883373/CAFE3407

BILL RECIPIENT

TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE SUITE 11

SOUTH BURLINGTON VT 05403

(802) 660-1990
REF: ERM ENERGIZER 1COOLER

FedEx Express

TRK# 0201 1870 7198 5711

WED - 28 OCT 10:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US BTV

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 460-59919.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Schove@Eurofinset.com	State of Origin: Vermont	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 460-221755-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 11/10/2020			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
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, 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)	8260C/5030C TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RB01-20201026-01 (460-221755-3)	10/26/20	09:20 Eastern		Water			X	3	
ERM-16-20201026-01 (460-221755-4)	10/26/20	12:20 Eastern		Water			X	3	
ERM-8-20201026-01 (460-221755-5)	10/26/20	13:30 Eastern		Water			X	3	
ERM-12-20201026-01 (460-221755-6)	10/26/20	14:35 Eastern		Water			X	3	
MW-104-20201026-01 (460-221755-7)	10/26/20	15:55 Eastern		Water			X	3	
MW-103-20201026-01 (460-221755-8)	10/26/20	16:50 Eastern		Water			X	3	
DUP-20201026-01 (460-221755-9)	10/26/20	12:00 Eastern		Water			X	3	
MW-102-20201027-01 (460-221755-10)	10/27/20	08:25 Eastern		Water			X	3	
MW-10-20201027-01 (460-221755-11)	10/27/20	09:40 Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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		11/2/20 1900	ET Rel.		11/03/20 1000	TA
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2ϕ # 1 ICE

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 460-59919.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Schove@Eurofinset.com	State of Origin: Vermont	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 460-221755-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 11/10/2020			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: Bennington, VT - Groundwater Analysis	Project #: 48022276			
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, 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)	8260C/5030C TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
TB-20201027-01 (460-221755-12)	10/27/20	Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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
	11/2/20 1400	ETAEd	PG		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

11/11/2020

Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 460-221755-1

Login Number: 221755
List Number: 1
Creator: DiGuardia, Joseph L

List Source: Eurofins TestAmerica, Edison

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?	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: ERM-Northeast

Job Number: 460-221755-1

Login Number: 221755
List Number: 4
Creator: Kolb, Chris M

List Source: Eurofins TestAmerica, Buffalo
List Creation: 11/04/20 06:02 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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	2.0 ir gun #1 ice
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 460-221755-1

Login Number: 221755
List Number: 3
Creator: Jaffe, Nat S

List Source: Eurofins TestAmerica, Burlington
List Creation: 11/03/20 09:11 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1402069
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	3.8ºC
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.	N/A	
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 TestAmerica, Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-56623-1
Laboratory Sample Delivery Group: 200-56623-1
Client Project/Site: Bennington, VT
Revision: 1

For:
ERM-Northeast
One Beacon Steet
5th Floor
Boston, Massachusetts 02108

Attn: Ms. Heather M Usle

Kathryn Kelly

Authorized for release by:
1/25/2021 3:30:20 PM

Kathryn Kelly, Project Manager II
(802)923-1021
Kathryn.Kelly@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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: 200-56623-1

Laboratory: Eurofins TestAmerica, Burlington

Narrative

CASE NARRATIVE

Client: ERM-Northeast

Project: Bennington, VT

Report Number: 200-56623-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

REVISION SUMMARY

The report being provided is a revision of the original report sent on 12/29/2020. The report (revision 1) is being revised due to: Correct the dilution factors for samples 200-56623-7 and 200-56623-8. The dilution factors were omitted in error from the analytical results.

RECEIPT

The samples were received on 12/19/2020; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Samples 0A-01-20201215-01, IA-01-20201215-01, IA-02-20201215-01, IA-03-20201215-01, IA-05-20201215-01, DUP-01-20201215-01, DUP-01-20201216-01, SSV-01-20201216-01, SSV-02-20201216-01, SSV-03-20201216-01 and SSV-05-20201216-01 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 12/23/2020 and 12/24/2020.

Samples SSV-02-20201216-01[10X], SSV-03-20201216-01[10X] and SSV-05-20201216-01[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Client Sample ID: 0A-01-20201215-01 — Lab Sample ID: 200-56623-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.065	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.28	J	0.87	0.27	ug/m3	1		TO-15	Total/NA

Client Sample ID: IA-01-20201215-01 — Lab Sample ID: 200-56623-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.048	J	0.20	0.035	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.063	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.068	J	0.20	0.048	ppb v/v	1		TO-15	Total/NA
Xylene (total)	0.068	J	0.70	0.048	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.43	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.26	J	1.1	0.19	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.27	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
Xylene, o-	0.29	J	0.87	0.21	ug/m3	1		TO-15	Total/NA
Xylene (total)	0.30	J	3.0	0.21	ug/m3	1		TO-15	Total/NA

Client Sample ID: IA-02-20201215-01 — Lab Sample ID: 200-56623-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.075	J	0.20	0.035	ppb v/v	1		TO-15	Total/NA
Toluene	0.13	J	0.20	0.11	ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.055	J	0.20	0.048	ppb v/v	1		TO-15	Total/NA
Xylene (total)	0.055	J	0.70	0.048	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.40	J	1.1	0.19	ug/m3	1		TO-15	Total/NA
Toluene	0.49	J	0.75	0.41	ug/m3	1		TO-15	Total/NA
Xylene, o-	0.24	J	0.87	0.21	ug/m3	1		TO-15	Total/NA
Xylene (total)	0.24	J	3.0	0.21	ug/m3	1		TO-15	Total/NA

Client Sample ID: IA-03-20201215-01 — Lab Sample ID: 200-56623-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.038	J	0.20	0.032	ppb v/v	1		TO-15	Total/NA
Benzene	0.095	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Toluene	0.27		0.20	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.18	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.52		0.50	0.10	ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.27		0.20	0.048	ppb v/v	1		TO-15	Total/NA
Xylene (total)	0.79		0.70	0.048	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.19	J	0.98	0.16	ug/m3	1		TO-15	Total/NA
Benzene	0.30	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Toluene	1.0		0.75	0.41	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.78	J	0.87	0.27	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-03-20201215-01 (Continued) — Lab Sample ID: 200-56623-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m,p-Xylene	2.3		2.2	0.43	ug/m3	1		TO-15	Total/NA
Xylene, o-	1.2		0.87	0.21	ug/m3	1		TO-15	Total/NA
Xylene (total)	3.4		3.0	0.21	ug/m3	1		TO-15	Total/NA

Client Sample ID: IA-05-20201215-01 — Lab Sample ID: 200-56623-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.12	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.065	J	0.20	0.035	ppb v/v	1		TO-15	Total/NA
Toluene	0.12	J	0.20	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.068	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.069	J	0.20	0.048	ppb v/v	1		TO-15	Total/NA
Xylene (total)	0.069	J	0.70	0.048	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.38	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.35	J	1.1	0.19	ug/m3	1		TO-15	Total/NA
Toluene	0.44	J	0.75	0.41	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.30	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
Xylene, o-	0.30	J	0.87	0.21	ug/m3	1		TO-15	Total/NA
Xylene (total)	0.30	J	3.0	0.21	ug/m3	1		TO-15	Total/NA

Client Sample ID: DUP-01-20201215-01 — Lab Sample ID: 200-56623-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.12	J	0.20	0.067	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.070	J	0.20	0.035	ppb v/v	1		TO-15	Total/NA
Toluene	0.12	J	0.20	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.067	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.39	J	0.64	0.21	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.37	J	1.1	0.19	ug/m3	1		TO-15	Total/NA
Toluene	0.47	J	0.75	0.41	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.29	J	0.87	0.27	ug/m3	1		TO-15	Total/NA

Client Sample ID: DUP-01-20201216-01 — Lab Sample ID: 200-56623-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	15		2.0	0.35	ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	2.2		2.0	0.33	ppb v/v	10		TO-15	Total/NA
Xylene, o-	0.62	J	2.0	0.48	ppb v/v	10		TO-15	Total/NA
Xylene (total)	0.62	J	7.0	0.48	ppb v/v	10		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	80		11	1.9	ug/m3	10		TO-15	Total/NA
Tetrachloroethene	15		14	2.2	ug/m3	10		TO-15	Total/NA
Xylene, o-	2.7	J	8.7	2.1	ug/m3	10		TO-15	Total/NA
Xylene (total)	2.7	J	30	2.1	ug/m3	10		TO-15	Total/NA

Client Sample ID: SSV-01-20201216-01 — Lab Sample ID: 200-56623-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	3.8		2.0	0.33	ppb v/v	10		TO-15	Total/NA
Ethylbenzene	0.69	J	2.0	0.63	ppb v/v	10		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SSV-01-20201216-01 (Continued) — Lab Sample ID: 200-56623-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylene, o-	0.56	J	2.0	0.48	ppb v/v	10		TO-15	Total/NA
Xylene (total)	0.56	J	7.0	0.48	ppb v/v	10		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	26		14	2.2	ug/m3	10		TO-15	Total/NA
Ethylbenzene	3.0	J	8.7	2.7	ug/m3	10		TO-15	Total/NA
Xylene, o-	2.4	J	8.7	2.1	ug/m3	10		TO-15	Total/NA
Xylene (total)	2.4	J	30	2.1	ug/m3	10		TO-15	Total/NA

Client Sample ID: SSV-02-20201216-01 — Lab Sample ID: 200-56623-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	3.1		2.0	0.35	ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	23		2.0	0.33	ppb v/v	10		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	16		11	1.9	ug/m3	10		TO-15	Total/NA
Tetrachloroethene	160		14	2.2	ug/m3	10		TO-15	Total/NA

Client Sample ID: SSV-03-20201216-01 — Lab Sample ID: 200-56623-10

No Detections.

Client Sample ID: SSV-05-20201216-01 — Lab Sample ID: 200-56623-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	16		2.0	0.35	ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	2.1		2.0	0.33	ppb v/v	10		TO-15	Total/NA
Ethylbenzene	0.69	J	2.0	0.63	ppb v/v	10		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	87		11	1.9	ug/m3	10		TO-15	Total/NA
Tetrachloroethene	15		14	2.2	ug/m3	10		TO-15	Total/NA
Ethylbenzene	3.0	J	8.7	2.7	ug/m3	10		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 0A-01-20201215-01

Lab Sample ID: 200-56623-1

Date Collected: 12/15/20 16:25
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			12/23/20 23:07	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			12/23/20 23:07	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			12/23/20 23:07	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			12/23/20 23:07	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			12/23/20 23:07	1
Chloroform	0.032	U	0.20	0.032	ppb v/v			12/23/20 23:07	1
Benzene	**0.13**	**J**	0.20	0.067	ppb v/v			12/23/20 23:07	1
Trichloroethene	0.035	U	0.20	0.035	ppb v/v			12/23/20 23:07	1
Toluene	0.11	U	0.20	0.11	ppb v/v			12/23/20 23:07	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			12/23/20 23:07	1
Ethylbenzene	**0.065**	**J**	0.20	0.063	ppb v/v			12/23/20 23:07	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			12/23/20 23:07	1
Xylene, o-	0.048	U	0.20	0.048	ppb v/v			12/23/20 23:07	1
Xylene (total)	0.048	U	0.70	0.048	ppb v/v			12/23/20 23:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			12/23/20 23:07	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			12/23/20 23:07	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			12/23/20 23:07	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			12/23/20 23:07	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			12/23/20 23:07	1
Chloroform	0.16	U	0.98	0.16	ug/m3			12/23/20 23:07	1
Benzene	**0.41**	**J**	0.64	0.21	ug/m3			12/23/20 23:07	1
Trichloroethene	0.19	U	1.1	0.19	ug/m3			12/23/20 23:07	1
Toluene	0.41	U	0.75	0.41	ug/m3			12/23/20 23:07	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			12/23/20 23:07	1
Ethylbenzene	**0.28**	**J**	0.87	0.27	ug/m3			12/23/20 23:07	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			12/23/20 23:07	1
Xylene, o-	0.21	U	0.87	0.21	ug/m3			12/23/20 23:07	1
Xylene (total)	0.21	U	3.0	0.21	ug/m3			12/23/20 23:07	1

Client Sample ID: IA-01-20201215-01

Lab Sample ID: 200-56623-2

Date Collected: 12/15/20 16:30
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			12/23/20 23:59	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			12/23/20 23:59	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			12/23/20 23:59	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			12/23/20 23:59	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			12/23/20 23:59	1
Chloroform	0.032	U	0.20	0.032	ppb v/v			12/23/20 23:59	1
Benzene	**0.13**	**J**	0.20	0.067	ppb v/v			12/23/20 23:59	1
Trichloroethene	**0.048**	**J**	0.20	0.035	ppb v/v			12/23/20 23:59	1
Toluene	0.11	U	0.20	0.11	ppb v/v			12/23/20 23:59	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			12/23/20 23:59	1
Ethylbenzene	**0.063**	**J**	0.20	0.063	ppb v/v			12/23/20 23:59	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			12/23/20 23:59	1

Client Sample ID: IA-01-20201215-01

Lab Sample ID: 200-56623-2

Date Collected: 12/15/20 16:30
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylene, o-	**0.068**	**J**	0.20	0.048	ppb v/v			12/23/20 23:59	1
Xylene (total)	**0.068**	**J**	0.70	0.048	ppb v/v			12/23/20 23:59	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			12/23/20 23:59	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			12/23/20 23:59	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			12/23/20 23:59	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			12/23/20 23:59	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			12/23/20 23:59	1
Chloroform	0.16	U	0.98	0.16	ug/m3			12/23/20 23:59	1
Benzene	**0.43**	**J**	0.64	0.21	ug/m3			12/23/20 23:59	1
Trichloroethene	**0.26**	**J**	1.1	0.19	ug/m3			12/23/20 23:59	1
Toluene	0.41	U	0.75	0.41	ug/m3			12/23/20 23:59	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			12/23/20 23:59	1
Ethylbenzene	**0.27**	**J**	0.87	0.27	ug/m3			12/23/20 23:59	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			12/23/20 23:59	1
Xylene, o-	**0.29**	**J**	0.87	0.21	ug/m3			12/23/20 23:59	1
Xylene (total)	**0.30**	**J**	3.0	0.21	ug/m3			12/23/20 23:59	1

Client Sample ID: IA-02-20201215-01

Lab Sample ID: 200-56623-3

Date Collected: 12/15/20 16:40
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			12/24/20 00:51	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			12/24/20 00:51	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			12/24/20 00:51	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			12/24/20 00:51	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			12/24/20 00:51	1
Chloroform	0.032	U	0.20	0.032	ppb v/v			12/24/20 00:51	1
Benzene	**0.15**	**J**	0.20	0.067	ppb v/v			12/24/20 00:51	1
Trichloroethene	**0.075**	**J**	0.20	0.035	ppb v/v			12/24/20 00:51	1
Toluene	**0.13**	**J**	0.20	0.11	ppb v/v			12/24/20 00:51	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			12/24/20 00:51	1
Ethylbenzene	0.063	U	0.20	0.063	ppb v/v			12/24/20 00:51	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			12/24/20 00:51	1
Xylene, o-	**0.055**	**J**	0.20	0.048	ppb v/v			12/24/20 00:51	1
Xylene (total)	**0.055**	**J**	0.70	0.048	ppb v/v			12/24/20 00:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			12/24/20 00:51	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			12/24/20 00:51	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			12/24/20 00:51	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			12/24/20 00:51	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			12/24/20 00:51	1
Chloroform	0.16	U	0.98	0.16	ug/m3			12/24/20 00:51	1
Benzene	**0.47**	**J**	0.64	0.21	ug/m3			12/24/20 00:51	1
Trichloroethene	**0.40**	**J**	1.1	0.19	ug/m3			12/24/20 00:51	1

Client Sample ID: IA-02-20201215-01

Lab Sample ID: 200-56623-3

Date Collected: 12/15/20 16:40
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**0.49**	**J**	0.75	0.41	ug/m3			12/24/20 00:51	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			12/24/20 00:51	1
Ethylbenzene	0.27	U	0.87	0.27	ug/m3			12/24/20 00:51	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			12/24/20 00:51	1
Xylene, o-	**0.24**	**J**	0.87	0.21	ug/m3			12/24/20 00:51	1
Xylene (total)	**0.24**	**J**	3.0	0.21	ug/m3			12/24/20 00:51	1

Client Sample ID: IA-03-20201215-01

Lab Sample ID: 200-56623-4

Date Collected: 12/15/20 16:55
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			12/24/20 01:43	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			12/24/20 01:43	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			12/24/20 01:43	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			12/24/20 01:43	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			12/24/20 01:43	1
Chloroform	**0.038**	**J**	0.20	0.032	ppb v/v			12/24/20 01:43	1
Benzene	**0.095**	**J**	0.20	0.067	ppb v/v			12/24/20 01:43	1
Trichloroethene	0.035	U	0.20	0.035	ppb v/v			12/24/20 01:43	1
Toluene	**0.27**		0.20	0.11	ppb v/v			12/24/20 01:43	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			12/24/20 01:43	1
Ethylbenzene	**0.18**	**J**	0.20	0.063	ppb v/v			12/24/20 01:43	1
m,p-Xylene	**0.52**		0.50	0.10	ppb v/v			12/24/20 01:43	1
Xylene, o-	**0.27**		0.20	0.048	ppb v/v			12/24/20 01:43	1
Xylene (total)	**0.79**		0.70	0.048	ppb v/v			12/24/20 01:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			12/24/20 01:43	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			12/24/20 01:43	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			12/24/20 01:43	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			12/24/20 01:43	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			12/24/20 01:43	1
Chloroform	**0.19**	**J**	0.98	0.16	ug/m3			12/24/20 01:43	1
Benzene	**0.30**	**J**	0.64	0.21	ug/m3			12/24/20 01:43	1
Trichloroethene	0.19	U	1.1	0.19	ug/m3			12/24/20 01:43	1
Toluene	**1.0**		0.75	0.41	ug/m3			12/24/20 01:43	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			12/24/20 01:43	1
Ethylbenzene	**0.78**	**J**	0.87	0.27	ug/m3			12/24/20 01:43	1
m,p-Xylene	**2.3**		2.2	0.43	ug/m3			12/24/20 01:43	1
Xylene, o-	**1.2**		0.87	0.21	ug/m3			12/24/20 01:43	1
Xylene (total)	**3.4**		3.0	0.21	ug/m3			12/24/20 01:43	1

Client Sample ID: IA-05-20201215-01

Lab Sample ID: 200-56623-5

Date Collected: 12/15/20 16:26
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			12/24/20 02:36	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			12/24/20 02:36	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			12/24/20 02:36	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			12/24/20 02:36	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			12/24/20 02:36	1
Chloroform	0.032	U	0.20	0.032	ppb v/v			12/24/20 02:36	1
Benzene	**0.12**	**J**	0.20	0.067	ppb v/v			12/24/20 02:36	1
Trichloroethene	**0.065**	**J**	0.20	0.035	ppb v/v			12/24/20 02:36	1
Toluene	**0.12**	**J**	0.20	0.11	ppb v/v			12/24/20 02:36	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			12/24/20 02:36	1
Ethylbenzene	**0.068**	**J**	0.20	0.063	ppb v/v			12/24/20 02:36	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			12/24/20 02:36	1
Xylene, o-	**0.069**	**J**	0.20	0.048	ppb v/v			12/24/20 02:36	1
Xylene (total)	**0.069**	**J**	0.70	0.048	ppb v/v			12/24/20 02:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			12/24/20 02:36	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			12/24/20 02:36	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			12/24/20 02:36	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			12/24/20 02:36	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			12/24/20 02:36	1
Chloroform	0.16	U	0.98	0.16	ug/m3			12/24/20 02:36	1
Benzene	**0.38**	**J**	0.64	0.21	ug/m3			12/24/20 02:36	1
Trichloroethene	**0.35**	**J**	1.1	0.19	ug/m3			12/24/20 02:36	1
Toluene	**0.44**	**J**	0.75	0.41	ug/m3			12/24/20 02:36	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			12/24/20 02:36	1
Ethylbenzene	**0.30**	**J**	0.87	0.27	ug/m3			12/24/20 02:36	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			12/24/20 02:36	1
Xylene, o-	**0.30**	**J**	0.87	0.21	ug/m3			12/24/20 02:36	1
Xylene (total)	**0.30**	**J**	3.0	0.21	ug/m3			12/24/20 02:36	1

Client Sample ID: DUP-01-20201215-01

Lab Sample ID: 200-56623-6

Date Collected: 12/15/20 20:00
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			12/24/20 03:28	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			12/24/20 03:28	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			12/24/20 03:28	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			12/24/20 03:28	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			12/24/20 03:28	1
Chloroform	0.032	U	0.20	0.032	ppb v/v			12/24/20 03:28	1
Benzene	**0.12**	**J**	0.20	0.067	ppb v/v			12/24/20 03:28	1
Trichloroethene	**0.070**	**J**	0.20	0.035	ppb v/v			12/24/20 03:28	1
Toluene	**0.12**	**J**	0.20	0.11	ppb v/v			12/24/20 03:28	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			12/24/20 03:28	1
Ethylbenzene	**0.067**	**J**	0.20	0.063	ppb v/v			12/24/20 03:28	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			12/24/20 03:28	1

Client Sample ID: DUP-01-20201215-01

Lab Sample ID: 200-56623-6

Date Collected: 12/15/20 20:00
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylene, o-	0.048	U	0.20	0.048	ppb v/v			12/24/20 03:28	1
Xylene (total)	0.048	U	0.70	0.048	ppb v/v			12/24/20 03:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			12/24/20 03:28	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			12/24/20 03:28	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			12/24/20 03:28	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			12/24/20 03:28	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			12/24/20 03:28	1
Chloroform	0.16	U	0.98	0.16	ug/m3			12/24/20 03:28	1
Benzene	**0.39**	**J**	0.64	0.21	ug/m3			12/24/20 03:28	1
Trichloroethene	**0.37**	**J**	1.1	0.19	ug/m3			12/24/20 03:28	1
Toluene	**0.47**	**J**	0.75	0.41	ug/m3			12/24/20 03:28	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			12/24/20 03:28	1
Ethylbenzene	**0.29**	**J**	0.87	0.27	ug/m3			12/24/20 03:28	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			12/24/20 03:28	1
Xylene, o-	0.21	U	0.87	0.21	ug/m3			12/24/20 03:28	1
Xylene (total)	0.21	U	3.0	0.21	ug/m3			12/24/20 03:28	1

Client Sample ID: DUP-01-20201216-01

Lab Sample ID: 200-56623-7

Date Collected: 12/16/20 12:10
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.44	U	2.0	0.44	ppb v/v			12/24/20 04:20	10
1,1-Dichloroethene	0.39	U	2.0	0.39	ppb v/v			12/24/20 04:20	10
trans-1,2-Dichloroethene	0.42	U	2.0	0.42	ppb v/v			12/24/20 04:20	10
cis-1,2-Dichloroethene	0.45	U	2.0	0.45	ppb v/v			12/24/20 04:20	10
1,2-Dichloroethene, Total	0.42	U	4.0	0.42	ppb v/v			12/24/20 04:20	10
Chloroform	0.32	U	2.0	0.32	ppb v/v			12/24/20 04:20	10
Benzene	0.67	U	2.0	0.67	ppb v/v			12/24/20 04:20	10
Trichloroethene	**15**		2.0	0.35	ppb v/v			12/24/20 04:20	10
Toluene	1.1	U	2.0	1.1	ppb v/v			12/24/20 04:20	10
Tetrachloroethene	**2.2**		2.0	0.33	ppb v/v			12/24/20 04:20	10
Ethylbenzene	0.63	U	2.0	0.63	ppb v/v			12/24/20 04:20	10
m,p-Xylene	1.0	U	5.0	1.0	ppb v/v			12/24/20 04:20	10
Xylene, o-	**0.62**	**J**	2.0	0.48	ppb v/v			12/24/20 04:20	10
Xylene (total)	**0.62**	**J**	7.0	0.48	ppb v/v			12/24/20 04:20	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.1	U	5.1	1.1	ug/m3			12/24/20 04:20	10
1,1-Dichloroethene	1.5	U	7.9	1.5	ug/m3			12/24/20 04:20	10
trans-1,2-Dichloroethene	1.7	U	7.9	1.7	ug/m3			12/24/20 04:20	10
cis-1,2-Dichloroethene	1.8	U	7.9	1.8	ug/m3			12/24/20 04:20	10
1,2-Dichloroethene, Total	1.7	U	16	1.7	ug/m3			12/24/20 04:20	10
Chloroform	1.6	U	9.8	1.6	ug/m3			12/24/20 04:20	10
Benzene	2.1	U	6.4	2.1	ug/m3			12/24/20 04:20	10
Trichloroethene	**80**		11	1.9	ug/m3			12/24/20 04:20	10

Client Sample ID: DUP-01-20201216-01

Lab Sample ID: 200-56623-7

Date Collected: 12/16/20 12:10
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	4.1	U	7.5	4.1	ug/m3			12/24/20 04:20	10
Tetrachloroethene	**15**		14	2.2	ug/m3			12/24/20 04:20	10
Ethylbenzene	2.7	U	8.7	2.7	ug/m3			12/24/20 04:20	10
m,p-Xylene	4.3	U	22	4.3	ug/m3			12/24/20 04:20	10
Xylene, o-	**2.7**	**J**	8.7	2.1	ug/m3			12/24/20 04:20	10
Xylene (total)	**2.7**	**J**	30	2.1	ug/m3			12/24/20 04:20	10

Client Sample ID: SSV-01-20201216-01

Lab Sample ID: 200-56623-8

Date Collected: 12/16/20 11:26
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.44	U	2.0	0.44	ppb v/v			12/24/20 05:13	10
1,1-Dichloroethene	0.39	U	2.0	0.39	ppb v/v			12/24/20 05:13	10
trans-1,2-Dichloroethene	0.42	U	2.0	0.42	ppb v/v			12/24/20 05:13	10
cis-1,2-Dichloroethene	0.45	U	2.0	0.45	ppb v/v			12/24/20 05:13	10
1,2-Dichloroethene, Total	0.42	U	4.0	0.42	ppb v/v			12/24/20 05:13	10
Chloroform	0.32	U	2.0	0.32	ppb v/v			12/24/20 05:13	10
Benzene	0.67	U	2.0	0.67	ppb v/v			12/24/20 05:13	10
Trichloroethene	0.35	U	2.0	0.35	ppb v/v			12/24/20 05:13	10
Toluene	1.1	U	2.0	1.1	ppb v/v			12/24/20 05:13	10
Tetrachloroethene	**3.8**		2.0	0.33	ppb v/v			12/24/20 05:13	10
Ethylbenzene	**0.69**	**J**	2.0	0.63	ppb v/v			12/24/20 05:13	10
m,p-Xylene	1.0	U	5.0	1.0	ppb v/v			12/24/20 05:13	10
Xylene, o-	**0.56**	**J**	2.0	0.48	ppb v/v			12/24/20 05:13	10
Xylene (total)	**0.56**	**J**	7.0	0.48	ppb v/v			12/24/20 05:13	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.1	U	5.1	1.1	ug/m3			12/24/20 05:13	10
1,1-Dichloroethene	1.5	U	7.9	1.5	ug/m3			12/24/20 05:13	10
trans-1,2-Dichloroethene	1.7	U	7.9	1.7	ug/m3			12/24/20 05:13	10
cis-1,2-Dichloroethene	1.8	U	7.9	1.8	ug/m3			12/24/20 05:13	10
1,2-Dichloroethene, Total	1.7	U	16	1.7	ug/m3			12/24/20 05:13	10
Chloroform	1.6	U	9.8	1.6	ug/m3			12/24/20 05:13	10
Benzene	2.1	U	6.4	2.1	ug/m3			12/24/20 05:13	10
Trichloroethene	1.9	U	11	1.9	ug/m3			12/24/20 05:13	10
Toluene	4.1	U	7.5	4.1	ug/m3			12/24/20 05:13	10
Tetrachloroethene	**26**		14	2.2	ug/m3			12/24/20 05:13	10
Ethylbenzene	**3.0**	**J**	8.7	2.7	ug/m3			12/24/20 05:13	10
m,p-Xylene	4.3	U	22	4.3	ug/m3			12/24/20 05:13	10
Xylene, o-	**2.4**	**J**	8.7	2.1	ug/m3			12/24/20 05:13	10
Xylene (total)	**2.4**	**J**	30	2.1	ug/m3			12/24/20 05:13	10

Client Sample ID: SSV-02-20201216-01

Lab Sample ID: 200-56623-9

Date Collected: 12/16/20 12:06
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.44	U	2.0	0.44	ppb v/v			12/24/20 06:05	10
1,1-Dichloroethene	0.39	U	2.0	0.39	ppb v/v			12/24/20 06:05	10
trans-1,2-Dichloroethene	0.42	U	2.0	0.42	ppb v/v			12/24/20 06:05	10
cis-1,2-Dichloroethene	0.45	U	2.0	0.45	ppb v/v			12/24/20 06:05	10
1,2-Dichloroethene, Total	0.42	U	4.0	0.42	ppb v/v			12/24/20 06:05	10
Chloroform	0.32	U	2.0	0.32	ppb v/v			12/24/20 06:05	10
Benzene	0.67	U	2.0	0.67	ppb v/v			12/24/20 06:05	10
Trichloroethene	**3.1**		2.0	0.35	ppb v/v			12/24/20 06:05	10
Toluene	1.1	U	2.0	1.1	ppb v/v			12/24/20 06:05	10
Tetrachloroethene	**23**		2.0	0.33	ppb v/v			12/24/20 06:05	10
Ethylbenzene	0.63	U	2.0	0.63	ppb v/v			12/24/20 06:05	10
m,p-Xylene	1.0	U	5.0	1.0	ppb v/v			12/24/20 06:05	10
Xylene, o-	0.48	U	2.0	0.48	ppb v/v			12/24/20 06:05	10
Xylene (total)	0.48	U	7.0	0.48	ppb v/v			12/24/20 06:05	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.1	U	5.1	1.1	ug/m3			12/24/20 06:05	10
1,1-Dichloroethene	1.5	U	7.9	1.5	ug/m3			12/24/20 06:05	10
trans-1,2-Dichloroethene	1.7	U	7.9	1.7	ug/m3			12/24/20 06:05	10
cis-1,2-Dichloroethene	1.8	U	7.9	1.8	ug/m3			12/24/20 06:05	10
1,2-Dichloroethene, Total	1.7	U	16	1.7	ug/m3			12/24/20 06:05	10
Chloroform	1.6	U	9.8	1.6	ug/m3			12/24/20 06:05	10
Benzene	2.1	U	6.4	2.1	ug/m3			12/24/20 06:05	10
Trichloroethene	**16**		11	1.9	ug/m3			12/24/20 06:05	10
Toluene	4.1	U	7.5	4.1	ug/m3			12/24/20 06:05	10
Tetrachloroethene	**160**		14	2.2	ug/m3			12/24/20 06:05	10
Ethylbenzene	2.7	U	8.7	2.7	ug/m3			12/24/20 06:05	10
m,p-Xylene	4.3	U	22	4.3	ug/m3			12/24/20 06:05	10
Xylene, o-	2.1	U	8.7	2.1	ug/m3			12/24/20 06:05	10
Xylene (total)	2.1	U	30	2.1	ug/m3			12/24/20 06:05	10

Client Sample ID: SSV-03-20201216-01

Lab Sample ID: 200-56623-10

Date Collected: 12/16/20 10:49
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.44	U	2.0	0.44	ppb v/v			12/24/20 06:57	10
1,1-Dichloroethene	0.39	U	2.0	0.39	ppb v/v			12/24/20 06:57	10
trans-1,2-Dichloroethene	0.42	U	2.0	0.42	ppb v/v			12/24/20 06:57	10
cis-1,2-Dichloroethene	0.45	U	2.0	0.45	ppb v/v			12/24/20 06:57	10
1,2-Dichloroethene, Total	0.42	U	4.0	0.42	ppb v/v			12/24/20 06:57	10
Chloroform	0.32	U	2.0	0.32	ppb v/v			12/24/20 06:57	10
Benzene	0.67	U	2.0	0.67	ppb v/v			12/24/20 06:57	10
Trichloroethene	0.35	U	2.0	0.35	ppb v/v			12/24/20 06:57	10
Toluene	1.1	U	2.0	1.1	ppb v/v			12/24/20 06:57	10
Tetrachloroethene	0.33	U	2.0	0.33	ppb v/v			12/24/20 06:57	10
Ethylbenzene	0.63	U	2.0	0.63	ppb v/v			12/24/20 06:57	10
m,p-Xylene	1.0	U	5.0	1.0	ppb v/v			12/24/20 06:57	10

Client Sample ID: SSV-03-20201216-01

Lab Sample ID: 200-56623-10

Date Collected: 12/16/20 10:49
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylene, o-	0.48	U	2.0	0.48	ppb v/v			12/24/20 06:57	10
Xylene (total)	0.48	U	7.0	0.48	ppb v/v			12/24/20 06:57	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.1	U	5.1	1.1	ug/m3			12/24/20 06:57	10
1,1-Dichloroethene	1.5	U	7.9	1.5	ug/m3			12/24/20 06:57	10
trans-1,2-Dichloroethene	1.7	U	7.9	1.7	ug/m3			12/24/20 06:57	10
cis-1,2-Dichloroethene	1.8	U	7.9	1.8	ug/m3			12/24/20 06:57	10
1,2-Dichloroethene, Total	1.7	U	16	1.7	ug/m3			12/24/20 06:57	10
Chloroform	1.6	U	9.8	1.6	ug/m3			12/24/20 06:57	10
Benzene	2.1	U	6.4	2.1	ug/m3			12/24/20 06:57	10
Trichloroethene	1.9	U	11	1.9	ug/m3			12/24/20 06:57	10
Toluene	4.1	U	7.5	4.1	ug/m3			12/24/20 06:57	10
Tetrachloroethene	2.2	U	14	2.2	ug/m3			12/24/20 06:57	10
Ethylbenzene	2.7	U	8.7	2.7	ug/m3			12/24/20 06:57	10
m,p-Xylene	4.3	U	22	4.3	ug/m3			12/24/20 06:57	10
Xylene, o-	2.1	U	8.7	2.1	ug/m3			12/24/20 06:57	10
Xylene (total)	2.1	U	30	2.1	ug/m3			12/24/20 06:57	10

Client Sample ID: SSV-05-20201216-01

Lab Sample ID: 200-56623-11

Date Collected: 12/16/20 13:00
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.44	U	2.0	0.44	ppb v/v			12/24/20 07:50	10
1,1-Dichloroethene	0.39	U	2.0	0.39	ppb v/v			12/24/20 07:50	10
trans-1,2-Dichloroethene	0.42	U	2.0	0.42	ppb v/v			12/24/20 07:50	10
cis-1,2-Dichloroethene	0.45	U	2.0	0.45	ppb v/v			12/24/20 07:50	10
1,2-Dichloroethene, Total	0.42	U	4.0	0.42	ppb v/v			12/24/20 07:50	10
Chloroform	0.32	U	2.0	0.32	ppb v/v			12/24/20 07:50	10
Benzene	0.67	U	2.0	0.67	ppb v/v			12/24/20 07:50	10
Trichloroethene	**16**		2.0	0.35	ppb v/v			12/24/20 07:50	10
Toluene	1.1	U	2.0	1.1	ppb v/v			12/24/20 07:50	10
Tetrachloroethene	**2.1**		2.0	0.33	ppb v/v			12/24/20 07:50	10
Ethylbenzene	**0.69**	**J**	2.0	0.63	ppb v/v			12/24/20 07:50	10
m,p-Xylene	1.0	U	5.0	1.0	ppb v/v			12/24/20 07:50	10
Xylene, o-	0.48	U	2.0	0.48	ppb v/v			12/24/20 07:50	10
Xylene (total)	0.48	U	7.0	0.48	ppb v/v			12/24/20 07:50	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.1	U	5.1	1.1	ug/m3			12/24/20 07:50	10
1,1-Dichloroethene	1.5	U	7.9	1.5	ug/m3			12/24/20 07:50	10
trans-1,2-Dichloroethene	1.7	U	7.9	1.7	ug/m3			12/24/20 07:50	10
cis-1,2-Dichloroethene	1.8	U	7.9	1.8	ug/m3			12/24/20 07:50	10
1,2-Dichloroethene, Total	1.7	U	16	1.7	ug/m3			12/24/20 07:50	10
Chloroform	1.6	U	9.8	1.6	ug/m3			12/24/20 07:50	10
Benzene	2.1	U	6.4	2.1	ug/m3			12/24/20 07:50	10
Trichloroethene	**87**		11	1.9	ug/m3			12/24/20 07:50	10

Client Sample ID: SSV-05-20201216-01
Lab Sample ID: 200-56623-11
Date Collected: 12/16/20 13:00
Matrix: Air
Date Received: 12/19/20 11:00
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	4.1	U	7.5	4.1	ug/m3			12/24/20 07:50	10
Tetrachloroethene	**15**		14	2.2	ug/m3			12/24/20 07:50	10
Ethylbenzene	**3.0**	**J**	8.7	2.7	ug/m3			12/24/20 07:50	10
m,p-Xylene	4.3	U	22	4.3	ug/m3			12/24/20 07:50	10
Xylene, o-	2.1	U	8.7	2.1	ug/m3			12/24/20 07:50	10
Xylene (total)	2.1	U	30	2.1	ug/m3			12/24/20 07:50	10

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-162431/5
Matrix: Air
Analysis Batch: 162431

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044	U	0.20	0.044	ppb v/v			12/23/20 13:32	1
1,1-Dichloroethene	0.039	U	0.20	0.039	ppb v/v			12/23/20 13:32	1
trans-1,2-Dichloroethene	0.042	U	0.20	0.042	ppb v/v			12/23/20 13:32	1
cis-1,2-Dichloroethene	0.045	U	0.20	0.045	ppb v/v			12/23/20 13:32	1
1,2-Dichloroethene, Total	0.042	U	0.40	0.042	ppb v/v			12/23/20 13:32	1
Chloroform	0.032	U	0.20	0.032	ppb v/v			12/23/20 13:32	1
Benzene	0.067	U	0.20	0.067	ppb v/v			12/23/20 13:32	1
Trichloroethene	0.035	U	0.20	0.035	ppb v/v			12/23/20 13:32	1
Toluene	0.11	U	0.20	0.11	ppb v/v			12/23/20 13:32	1
Tetrachloroethene	0.033	U	0.20	0.033	ppb v/v			12/23/20 13:32	1
Ethylbenzene	0.063	U	0.20	0.063	ppb v/v			12/23/20 13:32	1
m,p-Xylene	0.10	U	0.50	0.10	ppb v/v			12/23/20 13:32	1
Xylene, o-	0.048	U	0.20	0.048	ppb v/v			12/23/20 13:32	1
Xylene (total)	0.048	U	0.70	0.048	ppb v/v			12/23/20 13:32	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.11	U	0.51	0.11	ug/m3			12/23/20 13:32	1
1,1-Dichloroethene	0.15	U	0.79	0.15	ug/m3			12/23/20 13:32	1
trans-1,2-Dichloroethene	0.17	U	0.79	0.17	ug/m3			12/23/20 13:32	1
cis-1,2-Dichloroethene	0.18	U	0.79	0.18	ug/m3			12/23/20 13:32	1
1,2-Dichloroethene, Total	0.17	U	1.6	0.17	ug/m3			12/23/20 13:32	1
Chloroform	0.16	U	0.98	0.16	ug/m3			12/23/20 13:32	1
Benzene	0.21	U	0.64	0.21	ug/m3			12/23/20 13:32	1
Trichloroethene	0.19	U	1.1	0.19	ug/m3			12/23/20 13:32	1
Toluene	0.41	U	0.75	0.41	ug/m3			12/23/20 13:32	1
Tetrachloroethene	0.22	U	1.4	0.22	ug/m3			12/23/20 13:32	1
Ethylbenzene	0.27	U	0.87	0.27	ug/m3			12/23/20 13:32	1
m,p-Xylene	0.43	U	2.2	0.43	ug/m3			12/23/20 13:32	1
Xylene, o-	0.21	U	0.87	0.21	ug/m3			12/23/20 13:32	1
Xylene (total)	0.21	U	3.0	0.21	ug/m3			12/23/20 13:32	1

Lab Sample ID: LCS 200-162431/4
Matrix: Air
Analysis Batch: 162431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	9.99	11.9		ppb v/v		119	61 - 135
1,1-Dichloroethene	10.2	9.63		ppb v/v		95	68 - 120
trans-1,2-Dichloroethene	10.3	11.9		ppb v/v		115	69 - 137
cis-1,2-Dichloroethene	10.4	9.93		ppb v/v		96	72 - 121
Chloroform	10.3	12.0		ppb v/v		116	73 - 124
Benzene	10.4	11.1		ppb v/v		107	73 - 119
Trichloroethene	10.3	11.1		ppb v/v		108	73 - 122
Toluene	10.2	11.3		ppb v/v		111	75 - 122
Tetrachloroethene	10.5	10.3		ppb v/v		98	70 - 125
Ethylbenzene	10.2	11.5		ppb v/v		112	74 - 122
m,p-Xylene	20.0	22.6		ppb v/v		113	76 - 121
Xylene, o-	10.4	10.8		ppb v/v		104	73 - 123

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	26	30.4		ug/m3		119	61 - 135
1,1-Dichloroethene	40	38.2		ug/m3		95	68 - 120
trans-1,2-Dichloroethene	41	47.0		ug/m3		115	69 - 137
cis-1,2-Dichloroethene	41	39.4		ug/m3		96	72 - 121
Chloroform	50	58.4		ug/m3		116	73 - 124
Benzene	33	35.4		ug/m3		107	73 - 119
Trichloroethene	55	59.6		ug/m3		108	73 - 122
Toluene	38	42.7		ug/m3		111	75 - 122
Tetrachloroethene	71	69.9		ug/m3		98	70 - 125
Ethylbenzene	44	49.8		ug/m3		112	74 - 122
m,p-Xylene	87	97.9		ug/m3		113	76 - 121
Xylene, o-	45	46.9		ug/m3		104	73 - 123

QC Association Summary

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Air - GC/MS VOA

Analysis Batch: 162431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-56623-1	0A-01-20201215-01	Total/NA	Air	TO-15	
200-56623-2	IA-01-20201215-01	Total/NA	Air	TO-15	
200-56623-3	IA-02-20201215-01	Total/NA	Air	TO-15	
200-56623-4	IA-03-20201215-01	Total/NA	Air	TO-15	
200-56623-5	IA-05-20201215-01	Total/NA	Air	TO-15	
200-56623-6	DUP-01-20201215-01	Total/NA	Air	TO-15	
200-56623-7	DUP-01-20201216-01	Total/NA	Air	TO-15	
200-56623-8	SSV-01-20201216-01	Total/NA	Air	TO-15	
200-56623-9	SSV-02-20201216-01	Total/NA	Air	TO-15	
200-56623-10	SSV-03-20201216-01	Total/NA	Air	TO-15	
200-56623-11	SSV-05-20201216-01	Total/NA	Air	TO-15	
MB 200-162431/5	Method Blank	Total/NA	Air	TO-15	
LCS 200-162431/4	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Client Sample ID: 0A-01-20201215-01
Date Collected: 12/15/20 16:25
Date Received: 12/19/20 11:00

Lab Sample ID: 200-56623-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	162431	12/23/20 23:07	K1P	TAL BUR

Client Sample ID: IA-01-20201215-01
Date Collected: 12/15/20 16:30
Date Received: 12/19/20 11:00

Lab Sample ID: 200-56623-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	162431	12/23/20 23:59	K1P	TAL BUR

Client Sample ID: IA-02-20201215-01
Date Collected: 12/15/20 16:40
Date Received: 12/19/20 11:00

Lab Sample ID: 200-56623-3
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	162431	12/24/20 00:51	K1P	TAL BUR

Client Sample ID: IA-03-20201215-01
Date Collected: 12/15/20 16:55
Date Received: 12/19/20 11:00

Lab Sample ID: 200-56623-4
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	162431	12/24/20 01:43	K1P	TAL BUR

Client Sample ID: IA-05-20201215-01
Date Collected: 12/15/20 16:26
Date Received: 12/19/20 11:00

Lab Sample ID: 200-56623-5
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	162431	12/24/20 02:36	K1P	TAL BUR

Client Sample ID: DUP-01-20201215-01
Date Collected: 12/15/20 20:00
Date Received: 12/19/20 11:00

Lab Sample ID: 200-56623-6
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	162431	12/24/20 03:28	K1P	TAL BUR

Client Sample ID: DUP-01-20201216-01
Date Collected: 12/16/20 12:10
Date Received: 12/19/20 11:00

Lab Sample ID: 200-56623-7
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	162431	12/24/20 04:20	K1P	TAL BUR

Lab Chronicle

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Client Sample ID: SSV-01-20201216-01
Lab Sample ID: 200-56623-8
Date Collected: 12/16/20 11:26
Matrix: Air
Date Received: 12/19/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	162431	12/24/20 05:13	K1P	TAL BUR

Client Sample ID: SSV-02-20201216-01
Lab Sample ID: 200-56623-9
Date Collected: 12/16/20 12:06
Matrix: Air
Date Received: 12/19/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	162431	12/24/20 06:05	K1P	TAL BUR

Client Sample ID: SSV-03-20201216-01
Lab Sample ID: 200-56623-10
Date Collected: 12/16/20 10:49
Matrix: Air
Date Received: 12/19/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	162431	12/24/20 06:57	K1P	TAL BUR

Client Sample ID: SSV-05-20201216-01
Lab Sample ID: 200-56623-11
Date Collected: 12/16/20 13:00
Matrix: Air
Date Received: 12/19/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	162431	12/24/20 07:50	K1P	TAL BUR

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-21
New Hampshire	NELAP	2006	12-18-21
New Jersey	NELAP	VT972	12-28-20
New York	NELAP	10391	04-01-21
Pennsylvania	NELAP	68-00489	04-30-21
Rhode Island	State	LAO00298	12-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	12-30-20
Virginia	NELAP	460209	01-07-21
Wisconsin	State	399133350	08-31-21

Method Summary

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: ERM-Northeast
Project/Site: Bennington, VT

Job ID: 200-56623-1
SDG: 200-56623-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-56623-1	0A-01-20201215-01	Air	12/15/20 16:25	12/19/20 11:00	Air Canister (6-Liter) #4795
200-56623-2	IA-01-20201215-01	Air	12/15/20 16:30	12/19/20 11:00	Air Canister (6-Liter) #2898
200-56623-3	IA-02-20201215-01	Air	12/15/20 16:40	12/19/20 11:00	Air Canister (6-Liter) #8450
200-56623-4	IA-03-20201215-01	Air	12/15/20 16:55	12/19/20 11:00	Air Canister (6-Liter) #2677
200-56623-5	IA-05-20201215-01	Air	12/15/20 16:26	12/19/20 11:00	Air Canister (6-Liter) #6007
200-56623-6	DUP-01-20201215-01	Air	12/15/20 20:00	12/19/20 11:00	Air Canister (6-Liter) #4473
200-56623-7	DUP-01-20201216-01	Air	12/16/20 12:10	12/19/20 11:00	Air Canister (1-Liter) #6301
200-56623-8	SSV-01-20201216-01	Air	12/16/20 11:26	12/19/20 11:00	Air Canister (1-Liter) #3583
200-56623-9	SSV-02-20201216-01	Air	12/16/20 12:06	12/19/20 11:00	Air Canister (1-Liter) #34001104
200-56623-10	SSV-03-20201216-01	Air	12/16/20 10:49	12/19/20 11:00	Air Canister (1-Liter) #34000623
200-56623-11	SSV-05-20201216-01	Air	12/16/20 13:00	12/19/20 11:00	Air Canister (1-Liter) #34001940

Eurofins TestAmerica, Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins Environment Testing TestAmerica

Test America Laboratories, Inc. d/b/a Eurofins TestAmerica

COC No: 1 of 2 COCs

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:
(See below for Add'l Items)

Sample Specific Notes:

Client Contact Information	Client Project Manager: Jason Hnatko	Samples Collected By: K. Popyack
Company Name: ERM	Phone: 617-646-7842	
Address: 1 Beacon St	Email: Jason.hnatko@erm.com	
City/State/Zip: Boston MA 02108	Site Contact: Michael Salsberg	
Phone: 617-646-7842	Tel/Fax: 802-442-1328	
FAX:	Analysis Turnaround Time	
Project Name:	Standard (Specific): 15 day	
Site/Location: Bennington, VT	Rush (Specify):	
PO#		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)
OA-01-20201215-01	12/15/2020	0825	12/15/2020 1600 (KP)	1625	-28	-5.5	3114	4795		X												
IA-01-20201215-01		0830		1630	-30	-6.5	8533	2898		X												
IA-02-20201215-01		0840		1640	-23	-2.0	8866	8450		X												
IA-03-20201215-01		0855		1655	-30	-6.5	2759	2677		X												
IA-05-20201215-01		0845		1626	-30	-1.0	5187	6007		X												
DUP-01-20201215-01	↓	1200	↓	2000	-28	-1.0	3105	4473		X												
DUP-01-20201216-01	12/16/2020	1200	12/16/2020	1216	-24	-2.6	6291	6301	X													
SSV-01-20201216-01		1126		1126	-20	-0.5	5954	3581	X													
SSV-02-20201216-01		1156		1206	-30	-2.0	6086	34001109	X													
SSV-03-20201216-01	↓	1039	↓	1049	-30	-3.0	5339	34000623	X													

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Samples Shipped by: Katherine Popyack	Date / Time: 12/17/2020 1300	Samples Received by: 11:00 12/18/2020
Samples Relinquished by:	Date / Time: 12/17/2020 1300	Received by:
Relinquished by:	Date / Time:	Received by:
Lab Use Only: Shipper Name:	Opened by:	Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

200-56623 Chain of Custody

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** Jason Hnatko	**Samples Collected By:** K. Dapyack
Company Name: ERM	Phone: 617-646-7842	
Address: 1 Beacon St	Email: jason.hnatko@erm.com	
City/State/Zip: Boston MA 02108	Site Contact: Michael Salsburg	
Phone: 617-646-7842	Tel/Fax: 802-442-1328	
FAX:	**Analysis Turnaround Time**	
Project Name:	Standard (Specific): 15 day	
Site/Location: Bennington, VT	Rush (Specifiy):	
P.O.#		

COC No: 2 of 2 COCs

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SSV-05-20201216-G1	12/16/20	1250	12/16/2020	1300	-30	-2.0	8481	3400840	X														

Temperature (Fahrenheit)		
	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)		
	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:** 12/17/2020 1300	**Samples Received by:** 11:00 12/17/20
Samples Relinquished by:	**Date / Time:** 12/17/2020 1300	**Received by:**
Relinquished by:	**Date / Time:**	**Received by:**
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019



ORIGIN ID:BTVA (802) 923-1058
KATHERINE POPYACK
ERM
3616 STATE ROUTE 12B
SYRACUSE, NY 13341
UNITED STATES US

SHIP DATE: 04NOV20
ACTWGT: 10.00 LB MAN
CAD: 0008903364/CAFE3313

TO SAMPLE MANAGEMENT
EUROFINS TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 923-1058
REF: S200-26491

RMA:

FedEx Express

RETURNS MON-SAT

TRK# 0221 9334 4565 6300

FedEx

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 BTVA

05403
VT-US
BTV

FID: 3786968 18Dec2020 UCAA 56DG2/9196/05A2

ORIGIN ID:BTVA (802) 923-1058
KATHERINE POPYACK
3616 STATE ROUTE 12B
SYRACUSE, NY 13341
UNITED STATES US

SHIP DATE: 04NOV20
ACTWGT: 10.00 LB MAN
CAD: 0008903364/CAFE3313

SAMPLE MANAGEMENT
EUROFINS TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
923-1058
S200-26491

FedEx

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 0221 9334 4565 6296

X0 BTVA

05403
VT-US
BTV

FID: 3786968 18Dec2020 UCAA 56DG2/9196/05A2

Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 200-56623-1
SDG Number: 200-56623-1

Login Number: 56623
List Number: 1
Creator: Khudaier, Zahraa

List Source: Eurofins TestAmerica, Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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.	N/A	
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	

Pre-Shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID	Max DF#	# Cycles	Cleaning Start Date/Time		System Start Temp(s):		Technician	Can Size	Certification Type:
Top Rack	10	25	10/5/2020	1523	21	21	SML	6 liter	batch

Port	Can ID	Initial[1] (psia)	Final (psia)	Diff.[3]	Final ("Hg)	Initial Reading Gauge:	Date:	Time:	Tech:	Temp:	Final Reading Gauge:	Date:	Time:	Tech:	Temp:
1	2553	103	103	0	29.3	G25	10/6/20	1350	S—	21.0	G25	11/2/20	1307	S—	22.0
2	2523	"	103	0	29.3	G25	"	"	"	"	G25	"	"	"	"
3	2890	103	103	0	29.9	G25	11/2/20	1348	S—	22.0	G25	11/4/20	1154	S—	22.0
4	8450	103	103	0	29.3	G25	10/6/20	1350	S—	21.0	G25	11/2/20	1307	S—	22.0
5	5144		103	0	29.3	G25					G25				
6	6164		103	0	29.3	G25					G25				
7	4795		103	0	29.3	G25					G25				
8	5604		124	21	29.3	G25					G25				
9	3274		103	0	29.3	G25					G25				
10	4833		103	0	29.3	G25					G25				
11	4096		103	0	29.3	G25					G25				
12	6007	"	103	0	29.3	G25	"	"	"	"	G25	"	"	"	"

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister **PM Authorization** **Date:**

Clean Canister Certification Analysis & Authorization of Release to Inventory

Test Method: ☒ TO15 Routine ☐ TO15 LL

Can ID	Date	Sequence	Analyst	Inventory Level 1	2	3	4	Secondary Review Limited	Review Date	Revie
2890	10/8/20	43117	KPJ		XXXXXX				10/8/20	JTB

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:

200-55441-A-3
2890
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 10/5/2020 12:00 AM 200-1432079

Loc: 200
55441
#3 A
Air-Storag

Pre-Shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID	Max DF#	# Cycles	Cleaning Start Date/Time		System Start Temp(s):		Technician	Can Size	Certification Type:
Bottom Rack	10	25	10/5/2020	1523	21	21	SML	6 liter	batch

Port	Can ID	Initial[1] (psia)	Final (psia)	Diff.[3]	Final ("Hg)	Initial Reading Gauge:	Date:	Time:	Tech:	Temp:	Final Reading Gauge:	Date:	Time:	Tech:	Temp:
1	4473	.03	.03	0	29.3	G25	10/6/20	1350	S	21.0	G25	11/2/20	1325	S	22.0
2	2898	"	.19	.16	29.3	G25	"	"	"	"	G25	"	"	"	"
3	5416	.03	.03	0	29.9	G25	11/2/20	1402	S	22.0	G25	11/4/20	1154	S	22.0
4	4012	.03	.23	.20	29.3	G25	10/6/20	1350	S	21.0	G25	11/2/20	1325	S	22.0
5	2677		.03	0	29.3	G25					G25				
6	5675		.03	0	29.3	G25					G25				
7	4826		.03	0	29.3	G25					G25				
8	5093		.03	0	29.3	G25					G25				
9	5434		.03	0	29.3	G25					G25				
10	3642		.03	0	29.3	G25					G25				
11	3370		.03	0	29.3	G25					G25				
12	2632	"	.03	0	29.3	G25	"	"	"	"	G25	"	"	"	"

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister **PM Authorization** **Date:**

Clean Canister Certification Analysis & Authorization of Release to Inventory

Test Method: ☒ TO15 Routine ☐ TO15 LL

Can ID	Date	Sequence	Analyst	Inventory Level 1	2	3	4	Secondary Review Limited	Review Date	Revie
5416	10/8/20	43119	KPI		XXXXXX				10/8/20	JMB

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:

200-55442-A-3
5416
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 10/5/2020 12:00 AM 200-1432091
Loc: 200
55442
#3 A
Air-Storag

Pre-Shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID	Max DF#	# Cycles	Cleaning Start Date/Time		System Start Temp(s):		Technician	Can Size	Certification Type:
Oven 1/2	10	100	10/23/2020	1518	22	22	G16	6 liter	batch

Port	Can ID	Initial[1] (psia)	Final (psia)	Diff.[3]	Final ("Hg)	Initial Reading Gauge:	Date:	Time:	Tech:	Temp:	Final Reading Gauge:	Date:	Time:	Tech:	Temp:
1	8443	10.6	10.6	0	29.3	G25	10/24/20	1322	S—	22.0	G25	11/2/20	1527	S—	22.0
2	3583	↓	10.6	0	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
3	34001090	↓	10.9	.03	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
4	5926	↓	10.6	0	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
5	34001940	↓	10.6	0	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
6	34000623	10.6	10.6	0	29.3	G25	10/30/20	1028	S	22.0	G25	↓	↓	↓	↓
7	6301	10.6	10.6	0	29.3	G25	10/24/20	1322	S—	22.0	G25	↓	↓	↓	↓
8	6380	↓	10.6	0	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
9	34001104	↓	10.1	0	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
10	6448	↓	10.6	0	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
11	34001053	↓	10.6	0	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓
12	34000805	↓	10.8	.02	29.3	G25	↓	↓	↓	↓	G25	↓	↓	↓	↓

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister **PM Authorization** **Date:**

Clean Canister Certification Analysis & Authorization of Release to Inventory

Test Method: ☒ TO15 Routine ☐ TO15 LL

Can ID ✓	Date	Sequence	Analyst	Inventory Level 1	2	3	4	Secondary Review Limited	Review Date	Revie
34000623	10/27/20	433997	VJ			XXXXXXX			10/27/20	DBS

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:

200-55724-A-6
34000623
Location: Air-Storage
Bottle: Summa Canister 1L
Sampled: 10/23/2020 12:00 AM 200-1438559
Loc: 200
55724
#6 A
Air-Storag

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55441-1

SDG No.:

Client Sample ID: 2890 Lab Sample ID: 200-55441-3

Matrix: Air Lab File ID: 43117-009.d

Analysis Method: TO-15 Date Collected: 10/05/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 10/07/2020 14:42

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 159651 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene(Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.080	U	0.080	0.080
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55441-1

SDG No.:

Client Sample ID: 2890 Lab Sample ID: 200-55441-3

Matrix: Air Lab File ID: 43117-009.d

Analysis Method: TO-15 Date Collected: 10/05/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 10/07/2020 14:42

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 159651 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.14	U	0.14	0.14
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55441-1

SDG No.:

Client Sample ID: 2890 Lab Sample ID: 200-55441-3

Matrix: Air Lab File ID: 43117-009.d

Analysis Method: TO-15 Date Collected: 10/05/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 10/07/2020 14:42

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 159651 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\43117-009.d
Lims ID: 200-55441-A-3
Client ID: 2890
Sample Type: Client
Inject. Date: 07-Oct-2020 14:42:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0043117-009
Misc. Info.: 55441-3
Operator ID: ggg Instrument ID: CHW.i

Method: \\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\TO15_MasterMethod_(v1).m
Limit Group: AI_TO15_ICAL
Last Update: 08-Oct-2020 09:07:31 Calib Date: 27-Aug-2020 08:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20200826-42556.b\42556-021.d

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1012

First Level Reviewer: puangmaleek Date: 08-Oct-2020 09:07:31

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.008				ND	
	2 Dichlorodifluoromethane	85		4.115				ND	
	3 Chlorodifluoromethane	51		4.158				ND	
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.522				ND	
	5 Chloromethane	50		4.613				ND	
	6 Vinyl chloride	62		4.955				ND	
	7 Butane	43		4.966				ND	
	21 Butadiene	54		5.078				ND	
	8 Bromomethane	94		5.817				ND	
	9 Chloroethane	64		6.105				ND	
	11 Vinyl bromide	106		6.544				ND	
	12 Trichlorofluoromethane	101		6.715				ND	
	14 Ethanol	45		7.159				ND	
	17 1,1-Dichloroethene	96		7.812				ND	
	19 112TCTFE	101		7.849				ND	
	20 Acetone	43		7.908				ND	
	22 Carbon disulfide	76	8.213	8.213	-0.006	37	778	0.0341	M
	23 Isopropyl alcohol	45		8.224				ND	
	25 3-Chloro-1-propene	41		8.529				ND	
	26 Methylene Chloride	49		8.759				ND	
	27 2-Methyl-2-propanol	59		8.989				ND	
	29 trans-1,2-Dichloroethene	61		9.272				ND	
	30 Methyl tert-butyl ether	73		9.283				ND	
	32 Hexane	57		9.781				ND	
	33 1,1-Dichloroethane	63		10.048				ND	
	34 Vinyl acetate	43		10.070				ND	
S	38 1,2-Dichloroethene, Total	61		10.200				ND	7
	35 2-Butanone (MEK)	72		11.038				ND	
	36 cis-1,2-Dichloroethene	96		11.054				ND	
	37 Ethyl acetate	88		11.123				ND	
*	39 Chlorobromomethane	128	11.460	11.476	-0.016	76	45296	10.0	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	40 Tetrahydrofuran	42		11.519				ND	
	41 Chloroform	83		11.653				ND	
	42 1,1,1-Trichloroethane	97		11.958				ND	
	43 Cyclohexane	84		12.097				ND	
	44 Carbon tetrachloride	117		12.236				ND	
	45 Benzene	78		12.589				ND	
	46 1,2-Dichloroethane	62		12.669				ND	
	47 Isooctane	57		12.809				ND	
	48 n-Heptane	43		13.113				ND	
*	49 1,4-Difluorobenzene	114	13.328	13.333	-0.005	93	197779	10.0	
	51 Trichloroethene	95		13.772				ND	
	53 1,2-Dichloropropane	63		14.226				ND	
	54 Methyl methacrylate	69		14.317				ND	
	55 1,4-Dioxane	88		14.355				ND	
	56 Dibromomethane	174		14.387				ND	
	57 Dichlorobromomethane	83		14.697				ND	
	60 cis-1,3-Dichloropropene	75		15.505				ND	
	61 4-Methyl-2-pentanone (MIBK)	43		15.762				ND	
	62 Toluene	92		16.147				ND	
	64 trans-1,3-Dichloropropene	75		16.564				ND	
	65 1,1,2-Trichloroethane	83		16.944				ND	
	66 Tetrachloroethene	166		17.142				ND	
	67 2-Hexanone	43		17.345				ND	
	68 Chlorodibromomethane	129		17.687				ND	
	69 Ethylene Dibromide	107		17.923				ND	
*	70 Chlorobenzene-d5	117	18.838	18.838	0.000	85	156320	10.0	
	71 Chlorobenzene	112		18.897				ND	
	72 Ethylbenzene	91		19.089				ND	
	74 m-Xylene & p-Xylene	106		19.357				ND	
S	76 Xylenes, Total	106		20.100				ND	7
	77 o-Xylene	106		20.127				ND	
	78 Styrene	104		20.164				ND	
	79 Bromoform	173		20.512				ND	
	80 Isopropylbenzene	105		20.817				ND	
	81 1,1,2,2-Tetrachloroethane	83		21.336				ND	
	83 N-Propylbenzene	91		21.534				ND	
	84 2-Chlorotoluene	91		21.678				ND	
	85 4-Ethyltoluene	105		21.732				ND	
	86 1,3,5-Trimethylbenzene	105		21.823				ND	
	89 tert-Butylbenzene	119		22.304				ND	
	90 1,2,4-Trimethylbenzene	105		22.395				ND	
	91 sec-Butylbenzene	105		22.631				ND	
	92 1,3-Dichlorobenzene	146		22.802				ND	
	93 4-Isopropyltoluene	119		22.845				ND	
	94 1,4-Dichlorobenzene	146		22.946				ND	
	95 Benzyl chloride	91		23.091				ND	
	96 n-Butylbenzene	91		23.401				ND	
	97 1,2-Dichlorobenzene	146		23.433				ND	
	100 1,2,4-Trichlorobenzene	180		25.894				ND	
	101 Hexachlorobutadiene	225		26.140				ND	
	102 Naphthalene	128		26.375				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

ATTO15WISs_00004	Amount Added:	20.00	Units: mL	Run Reagent

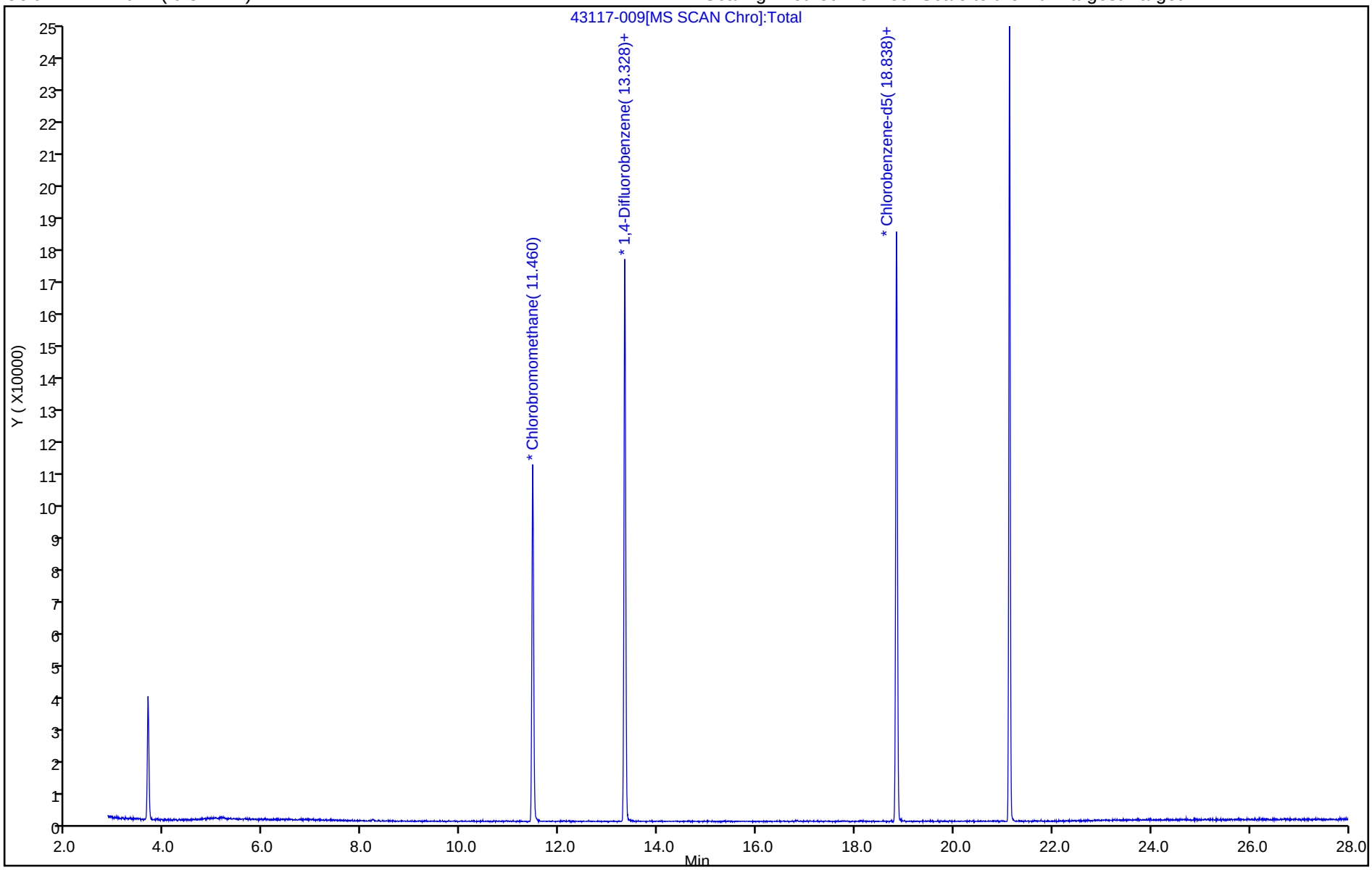
Report Date: 08-Oct-2020 09:07:31 Chrom Revision: 2.3 24-Sep-2020 19:22:38

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\43117-009.d

Injection Date:	07-Oct-2020 14:42:30	Instrument ID:	CHW.i	Operator ID:	ggg
Lims ID:	200-55441-A-3	Lab Sample ID:	200-55441-3	Worklist Smp#:	9
Client ID:	2890				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	8
Method:	TO15_MasterMethod_(v1)	Limit Group:	AI_TO15_ICAL		

Column: RTX-624 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

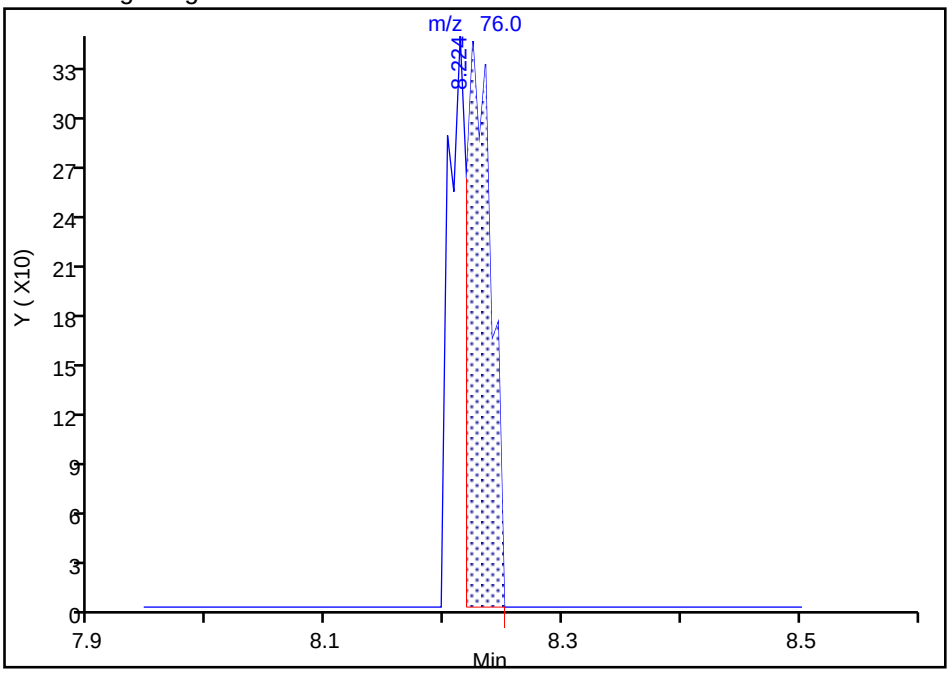
Data File:	\\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\43117-009.d				
Injection Date:	07-Oct-2020 14:42:30	Instrument ID:	CHW.i		
Lims ID:	200-55441-A-3	Lab Sample ID:	200-55441-3		
Client ID:	2890				
Operator ID:	ggg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	200.000 mL	Dil. Factor:	0.2000		
Method:	TO15_MasterMethod_(v1)	Limit Group:	AI_TO15_ICAL		
Column:	RTX-624 (0.32 mm)	Detector	MS SCAN		

22 Carbon disulfide, CAS: 75-15-0

Signal: 1

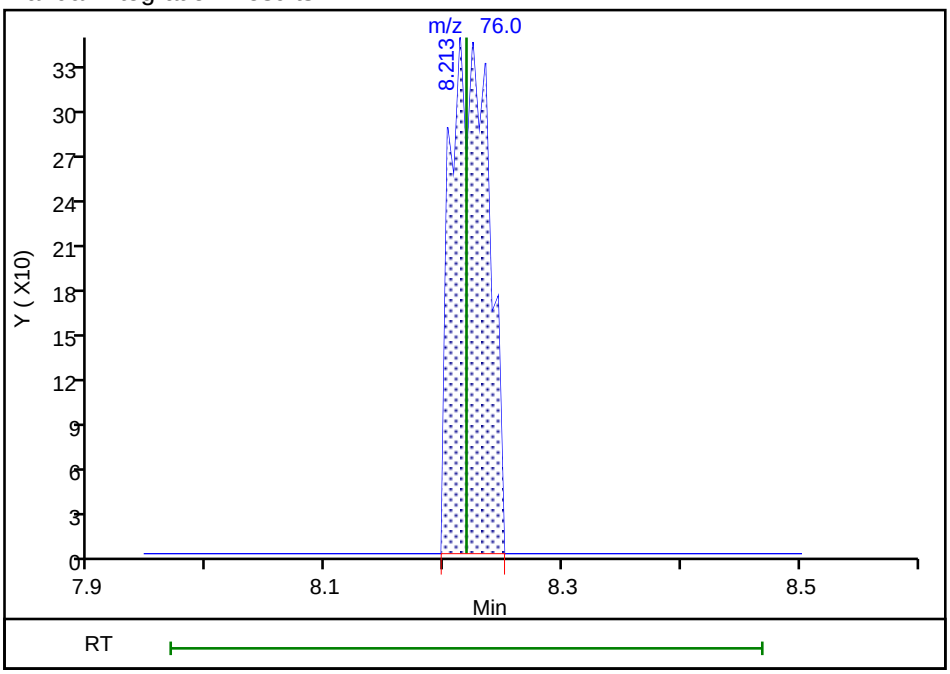
Processing Integration Results

RT: 8.22
Area: 495
Amount: 0.021727
Amount Units: ppb v/v



Manual Integration Results

RT: 8.21
Area: 778
Amount: 0.034149
Amount Units: ppb v/v



Reviewer: puangmaleek, 08-Oct-2020 09:06:16

Audit Action: Manually Integrated Audit Reason: Assign Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55442-1

SDG No.:

Client Sample ID: 5416 Lab Sample ID: 200-55442-3

Matrix: Air Lab File ID: 43117-008.d

Analysis Method: TO-15 Date Collected: 10/05/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 10/07/2020 13:34

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 159651 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene(Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.080	U	0.080	0.080
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55442-1

SDG No.:

Client Sample ID: 5416 Lab Sample ID: 200-55442-3

Matrix: Air Lab File ID: 43117-008.d

Analysis Method: TO-15 Date Collected: 10/05/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 10/07/2020 13:34

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 159651 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.14	U	0.14	0.14
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55442-1

SDG No.:

Client Sample ID: 5416 Lab Sample ID: 200-55442-3

Matrix: Air Lab File ID: 43117-008.d

Analysis Method: TO-15 Date Collected: 10/05/2020 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 10/07/2020 13:34

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 159651 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\43117-008.d
Lims ID: 200-55442-A-3
Client ID: 5416
Sample Type: Client
Inject. Date: 07-Oct-2020 13:34:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0043117-008
Misc. Info.: 55442-3
Operator ID: ggg Instrument ID: CHW.i

Method: \\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\TO15_MasterMethod_(v1).m
Limit Group: AI_TO15_ICAL
Last Update: 08-Oct-2020 09:05:40 Calib Date: 27-Aug-2020 08:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20200826-42556.b\42556-021.d

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1012

First Level Reviewer: puangmaleek Date: 08-Oct-2020 09:05:40

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.008				ND	
	2 Dichlorodifluoromethane	85		4.115				ND	
	3 Chlorodifluoromethane	51		4.158				ND	U
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.522				ND	
	5 Chloromethane	50		4.613				ND	
	6 Vinyl chloride	62		4.955				ND	
	7 Butane	43		4.966				ND	
	21 Butadiene	54		5.078				ND	
	8 Bromomethane	94		5.817				ND	
	9 Chloroethane	64		6.105				ND	
	11 Vinyl bromide	106		6.544				ND	
	12 Trichlorofluoromethane	101		6.715				ND	
	14 Ethanol	45		7.159				ND	
	17 1,1-Dichloroethene	96		7.812				ND	
	19 112TCTFE	101		7.849				ND	
	20 Acetone	43		7.908				ND	
	22 Carbon disulfide	76	8.203	8.219	-0.016	54	690	0.0289	
	23 Isopropyl alcohol	45		8.224				ND	
	25 3-Chloro-1-propene	41		8.529				ND	
	26 Methylene Chloride	49		8.759				ND	
	27 2-Methyl-2-propanol	59		8.989				ND	
	29 trans-1,2-Dichloroethene	61		9.272				ND	
	30 Methyl tert-butyl ether	73		9.283				ND	
	32 Hexane	57		9.781				ND	
	33 1,1-Dichloroethane	63		10.048				ND	
	34 Vinyl acetate	43		10.070				ND	
S	38 1,2-Dichloroethene, Total	61		10.200				ND	7
	35 2-Butanone (MEK)	72		11.038				ND	
	36 cis-1,2-Dichloroethene	96		11.054				ND	
	37 Ethyl acetate	88		11.123				ND	
*	39 Chlorobromomethane	128	11.455	11.476	-0.021	77	47401	10.0	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	40 Tetrahydrofuran	42		11.519				ND	
	41 Chloroform	83		11.653				ND	
	42 1,1,1-Trichloroethane	97		11.958				ND	
	43 Cyclohexane	84		12.097				ND	
	44 Carbon tetrachloride	117		12.236				ND	
	45 Benzene	78		12.589				ND	
	46 1,2-Dichloroethane	62		12.669				ND	
	47 Isooctane	57		12.809				ND	
	48 n-Heptane	43		13.113				ND	
*	49 1,4-Difluorobenzene	114	13.328	13.333	-0.005	93	211221	10.0	
	51 Trichloroethene	95		13.772				ND	
	53 1,2-Dichloropropane	63		14.226				ND	
	54 Methyl methacrylate	69		14.317				ND	
	55 1,4-Dioxane	88		14.355				ND	
	56 Dibromomethane	174		14.387				ND	
	57 Dichlorobromomethane	83		14.697				ND	
	60 cis-1,3-Dichloropropene	75		15.505				ND	
	61 4-Methyl-2-pentanone (MIBK)	43		15.762				ND	
	62 Toluene	92		16.147				ND	
	64 trans-1,3-Dichloropropene	75		16.564				ND	
	65 1,1,2-Trichloroethane	83		16.944				ND	
	66 Tetrachloroethene	166		17.142				ND	
	67 2-Hexanone	43		17.345				ND	
	68 Chlorodibromomethane	129		17.687				ND	
	69 Ethylene Dibromide	107		17.923				ND	
*	70 Chlorobenzene-d5	117	18.838	18.838	0.000	85	167976	10.0	
	71 Chlorobenzene	112		18.897				ND	
	72 Ethylbenzene	91		19.089				ND	7
	74 m-Xylene & p-Xylene	106		19.357				ND	
S	76 Xylenes, Total	106		20.100				ND	7
	77 o-Xylene	106		20.127				ND	
	78 Styrene	104		20.164				ND	
	79 Bromoform	173		20.512				ND	
	80 Isopropylbenzene	105		20.817				ND	
	81 1,1,2,2-Tetrachloroethane	83		21.336				ND	
	83 N-Propylbenzene	91		21.534				ND	
	84 2-Chlorotoluene	91		21.678				ND	
	85 4-Ethyltoluene	105		21.732				ND	
	86 1,3,5-Trimethylbenzene	105		21.823				ND	
	89 tert-Butylbenzene	119		22.304				ND	
	90 1,2,4-Trimethylbenzene	105		22.395				ND	
	91 sec-Butylbenzene	105		22.631				ND	
	92 1,3-Dichlorobenzene	146		22.802				ND	
	93 4-Isopropyltoluene	119		22.845				ND	
	94 1,4-Dichlorobenzene	146		22.946				ND	
	95 Benzyl chloride	91		23.091				ND	
	96 n-Butylbenzene	91		23.401				ND	
	97 1,2-Dichlorobenzene	146		23.433				ND	
	100 1,2,4-Trichlorobenzene	180		25.894				ND	
	101 Hexachlorobutadiene	225		26.140				ND	
	102 Naphthalene	128		26.375				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

ATTO15WISs_00004 Amount Added: 20.00 Units: mL Run Reagent

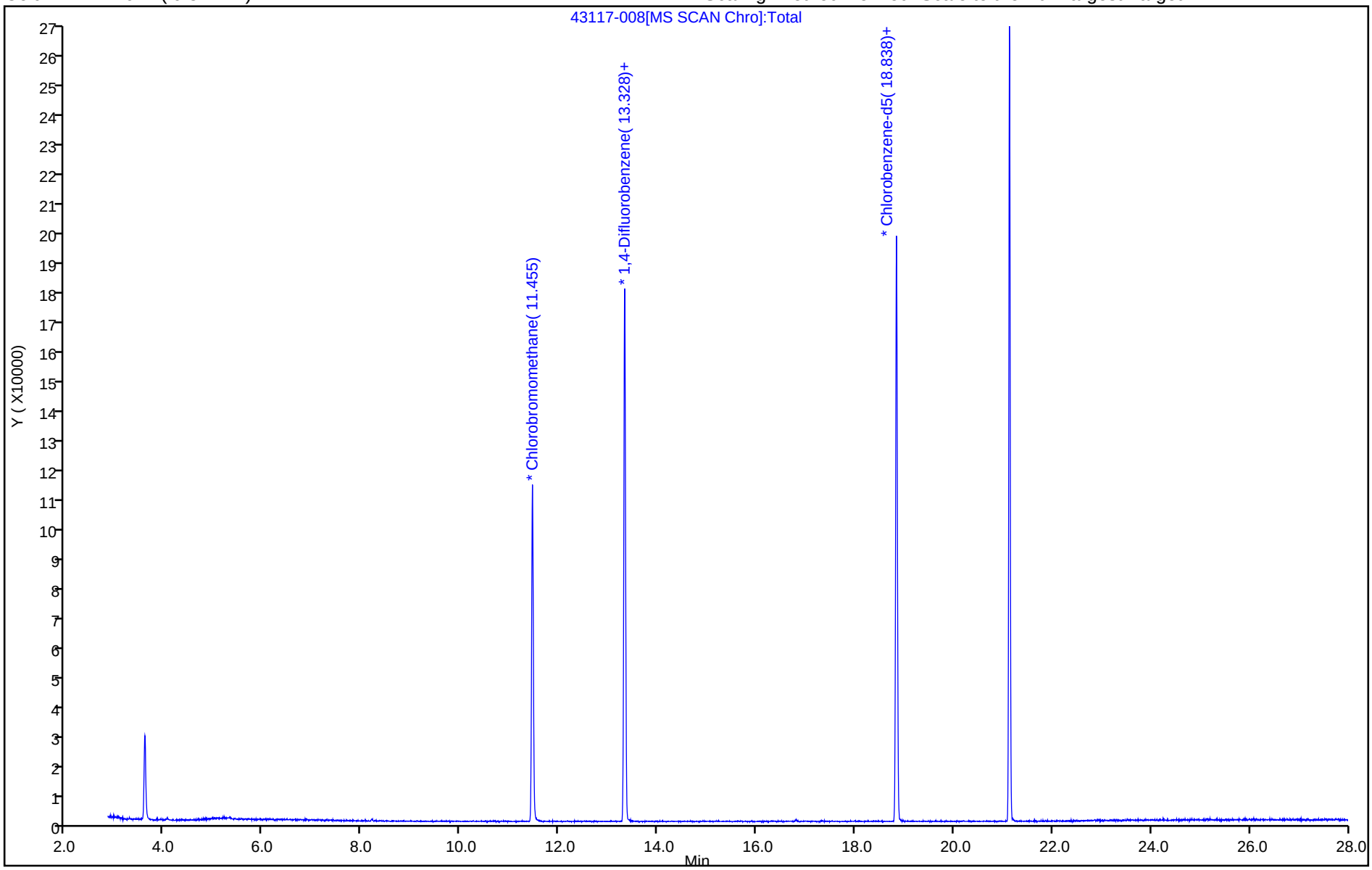
Report Date: 08-Oct-2020 09:05:40 Chrom Revision: 2.3 24-Sep-2020 19:22:38

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\43117-008.d

Injection Date:	07-Oct-2020 13:34:30	Instrument ID:	CHW.i	Operator ID:	ggg
Lims ID:	200-55442-A-3	Lab Sample ID:	200-55442-3	Worklist Smp#:	8
Client ID:	5416				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	7
Method:	TO15_MasterMethod_(v1)	Limit Group:	AI_TO15_ICAL		

Column: RTX-624 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



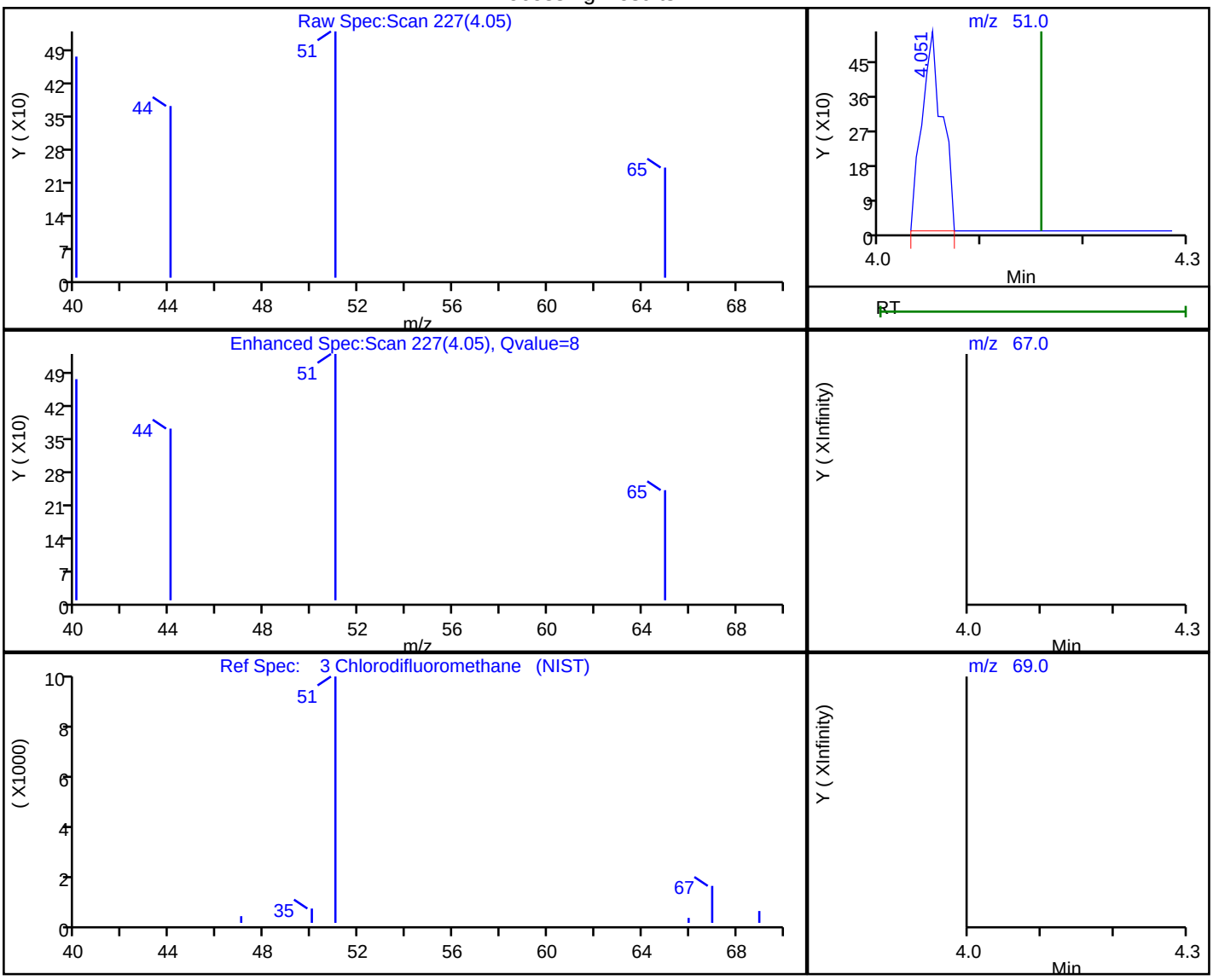
User Disabled Compound Report

Eurofins TestAmerica, Burlington

Data File:	\\chromfs\Burlington\ChromData\CHW.i\20201007-43117.b\43117-008.d				
Injection Date:	07-Oct-2020 13:34:30	Instrument ID:	CHW.i		
Lims ID:	200-55442-A-3	Lab Sample ID:	200-55442-3		
Client ID:	5416				
Operator ID:	ggg	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	200.000 mL	Dil. Factor:	0.2000		
Method:	TO15_MasterMethod_(v1)	Limit Group:	AI_TO15_ICAL		
Column:	RTX-624 (0.32 mm)	Detector	MS SCAN		

3 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.05	51.00	728	0.048953
4.16	67.00	0	
4.16	69.00	0	

Reviewer: puangmaleek, 08-Oct-2020 09:05:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55724-1

SDG No.:

Client Sample ID: 34000623 Lab Sample ID: 200-55724-6

Matrix: Air Lab File ID: 43397-06.D

Analysis Method: TO-15 Date Collected: 10/23/2020 00:00

Sample wt/vol: 200(mL) Date Analyzed: 10/27/2020 12:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 160435 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55724-1

SDG No.:

Client Sample ID: 34000623 Lab Sample ID: 200-55724-6

Matrix: Air Lab File ID: 43397-06.D

Analysis Method: TO-15 Date Collected: 10/23/2020 00:00

Sample wt/vol: 200(mL) Date Analyzed: 10/27/2020 12:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 160435 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-55724-1

SDG No.:

Client Sample ID: 34000623 Lab Sample ID: 200-55724-6

Matrix: Air Lab File ID: 43397-06.D

Analysis Method: TO-15 Date Collected: 10/23/2020 00:00

Sample wt/vol: 200(mL) Date Analyzed: 10/27/2020 12:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 160435 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHX.i\20201027-43397.b\43397-06.D
Lims ID: 200-55724-A-6
Client ID: 34000623
Sample Type: Client
Inject. Date: 27-Oct-2020 12:03:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Sample Info: 200-0043397-006
Operator ID: ggg Instrument ID: CHX.i

Method: \\chromfs\Burlington\ChromData\CHX.i\20201027-43397.b\TO15_MasterMethod_X.m.m
Limit Group: AI_TO15_ICAL
Last Update: 27-Oct-2020 10:48:49 Calib Date: 22-Oct-2020 00:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHX.i\20201021-43321.b\43321-13.D

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1654

First Level Reviewer: bourdeaut Date: 27-Oct-2020 13:29:39

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.354				ND	7
	2 Dichlorodifluoromethane	85		4.445				ND	7
	3 Chlorodifluoromethane	51		4.493				ND	7
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.803				ND	
	5 Chloromethane	50		4.932				ND	7
	6 Butane	43		5.242				ND	7
	7 Vinyl chloride	62		5.247				ND	
	8 Butadiene	54		5.354				ND	
	10 Bromomethane	94		6.076				ND	
	11 Chloroethane	64		6.344				ND	
	13 Vinyl bromide	106		6.767				ND	
	14 Trichlorofluoromethane	101		6.916				ND	7
	17 Ethanol	45	7.302	7.264	0.038	98	8381	0.2299	
	21 1,1-Dichloroethene	96		7.981				ND	7
	20 112TCTFE	101		8.008				ND	
	22 Acetone	43		8.045				ND	7
	24 Isopropyl alcohol	45	8.366	8.318	0.048	100	13390	0.1076	
	23 Carbon disulfide	76		8.398				ND	7
	25 3-Chloro-1-propene	41		8.682				ND	7
	27 Methylene Chloride	49		8.917				ND	7
	28 2-Methyl-2-propanol	59		9.078				ND	
	29 Methyl tert-butyl ether	73		9.388				ND	
	31 trans-1,2-Dichloroethene	61		9.409				ND	7
S	30 1,2-Dichloroethene, Total	61		9.665				ND	7
	33 Hexane	57		9.901				ND	7
	35 Vinyl acetate	43		10.169				ND	7
	34 1,1-Dichloroethane	63		10.180				ND	
	38 2-Butanone (MEK)	72		11.127				ND	7
	37 cis-1,2-Dichloroethene	96		11.175				ND	7
	39 Ethyl acetate	88		11.207				ND	
*	40 Chlorobromomethane	128	11.592	11.592	0.000	92	527153	10.0	
	41 Tetrahydrofuran	42		11.608				ND	7

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
42 Chloroform	83		11.763				ND	
44 1,1,1-Trichloroethane	97		12.063				ND	
43 Cyclohexane	84		12.191				ND	
45 Carbon tetrachloride	117		12.336				ND	
47 Benzene	78		12.683				ND	7
48 1,2-Dichloroethane	62		12.774				ND	
46 Isooctane	57		12.881				ND	
49 n-Heptane	43		13.186				ND	7
* 50 1,4-Difluorobenzene	114	13.427	13.427	0.000	94	2728237	10.0	
53 Trichloroethene	95		13.855				ND	7
54 1,2-Dichloropropane	63		14.320				ND	
55 Methyl methacrylate	69		14.379				ND	
56 1,4-Dioxane	88		14.427				ND	7
57 Dibromomethane	174		14.481				ND	7
58 Dichlorobromomethane	83		14.786				ND	
60 cis-1,3-Dichloropropene	75		15.583				ND	7
61 4-Methyl-2-pentanone (MIBK)	43		15.824				ND	7
65 Toluene	92		16.214				ND	7
66 trans-1,3-Dichloropropene	75		16.642				ND	7
67 1,1,2-Trichloroethane	83		17.022				ND	
68 Tetrachloroethene	166		17.198				ND	7
69 2-Hexanone	43		17.402				ND	7
71 Chlorodibromomethane	129		17.760				ND	7
72 Ethylene Dibromide	107	18.006	18.006	0.000	92	1944	0.0141	
* 74 Chlorobenzene-d5	117	18.900	18.900	0.000	86	2101723	10.0	
75 Chlorobenzene	112	18.964	18.959	0.006	83	3603	0.0163	
76 Ethylbenzene	91	19.141	19.141	0.001	97	6054	0.0159	
78 m-Xylene & p-Xylene	106	19.408	19.403	0.005	0	3311	0.0227	
S 73 Xylenes, Total	106				0		0.0373	
79 o-Xylene	106	20.184	20.178	0.006	95	2082	0.0146	
80 Styrene	104	20.216	20.216	0.000	97	4752	0.0230	
81 Bromoform	173	20.574	20.574	0.000	91	1791	0.0135	
82 Isopropylbenzene	105		20.858				ND	7
84 1,1,2,2-Tetrachloroethane	83	21.382	21.382	0.000	97	5294	0.0249	
85 N-Propylbenzene	91	21.569	21.569	0.000	99	10657	0.0225	
89 2-Chlorotoluene	91	21.719	21.719	0.000	96	7430	0.0245	
88 4-Ethyltoluene	105	21.762	21.762	0.000	98	8846	0.0231	
90 1,3,5-Trimethylbenzene	105	21.853	21.853	0.000	94	3995	0.0117	
92 tert-Butylbenzene	119		22.334				ND	7
93 1,2,4-Trimethylbenzene	105	22.420	22.420	0.000	96	6138	0.0187	
94 sec-Butylbenzene	105		22.655				ND	7
96 1,3-Dichlorobenzene	146	22.837	22.832	0.005	96	9287	0.0572	
95 4-Isopropyltoluene	119	22.864	22.864	0.000	95	4096	0.0102	
97 1,4-Dichlorobenzene	146	22.976	22.976	0.000	92	8857	0.0628	
98 Benzyl chloride	91	23.121	23.121	0.000	98	8620	0.0498	
100 n-Butylbenzene	91	23.426	23.420	0.006	97	8655	0.0259	
101 1,2-Dichlorobenzene	146	23.463	23.463	0.000	95	10657	0.0610	
103 1,2,4-Trichlorobenzene	180	25.913	25.919	-0.005	93	7623	0.1012	
104 Hexachlorobutadiene	225		26.154				ND	7
105 Naphthalene	128	26.405	26.405	0.000	97	13369	0.0679	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

ATTO15XISs_00002 Amount Added: 20.00 Units: mL Run Reagent

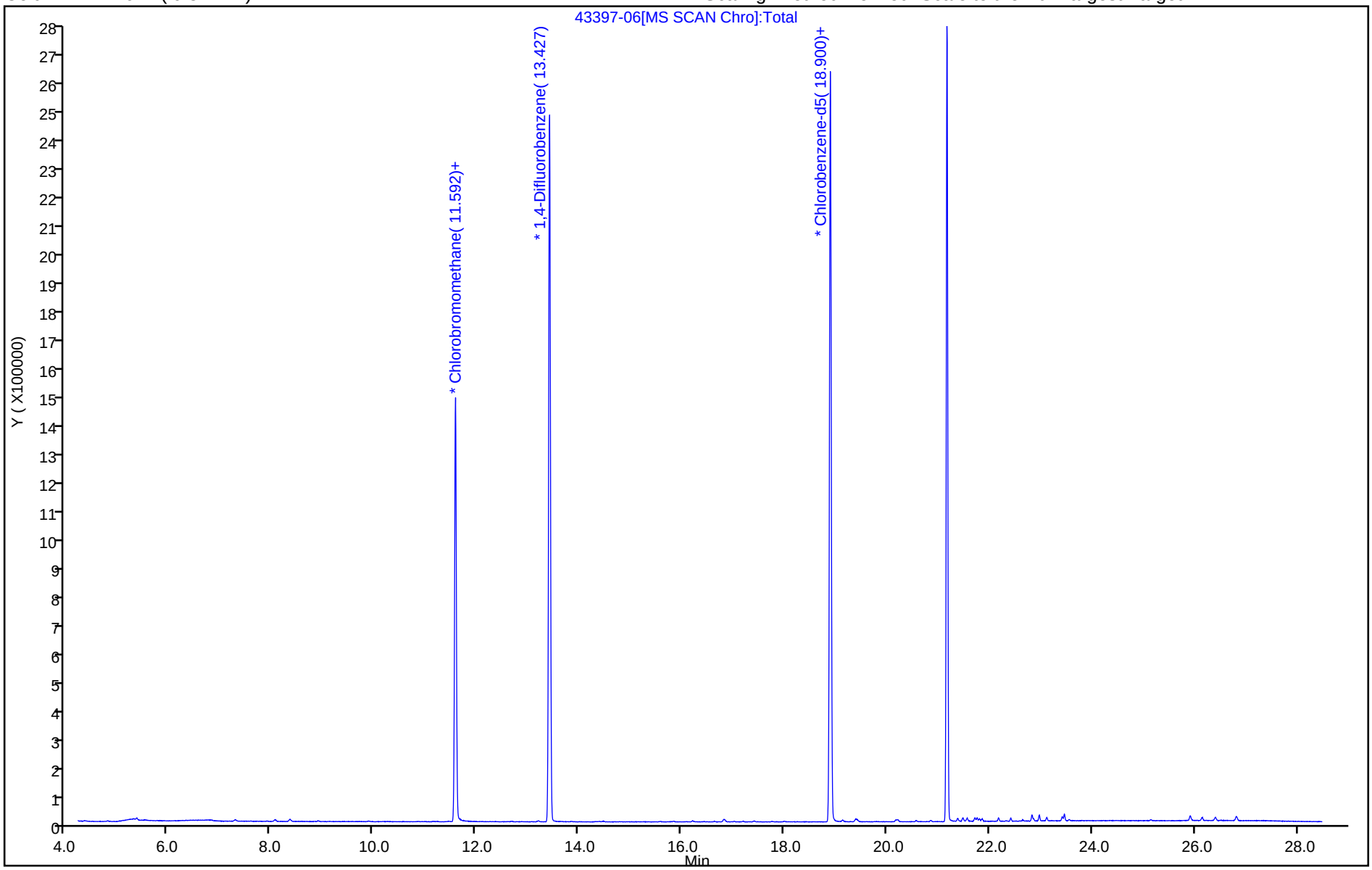
Report Date: 27-Oct-2020 13:29:57 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHX.i\20201027-43397.b\43397-06.D

Injection Date:	27-Oct-2020 12:03:30	Instrument ID:	CHX.i	Operator ID:	ggg
Lims ID:	200-55724-A-6	Lab Sample ID:	200-55724-6	Worklist Smp#:	6
Client ID:	34000623				
Purge Vol:	200.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	TO15_MasterMethod_X.m	Limit Group:	AI_TO15_ICAL		

Column: RTX-624 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



1/25/2021 (Rev. 1)

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