Phase II Environmental Site Assessment Report:

Former UVRLC Landfill
7412 VT Route 113, Thetford, Vermont, SMS# 2020-4971

August 7, 2023

PROJECT NO.

20-096

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Title and Approval Page

Document Title
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August 7, 2023

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I certify under penalty of perjury that I am an environmental professional and that all content contained within this deliverable is to the best of my knowledge true and correct.

8/7/2023

Signature Date

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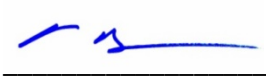

8/7/2023

Signature Date

Executive Summary

This Phase II Environmental Site Assessment (ESA) has been prepared by Stone Environmental, Inc. (Stone) on behalf of Green Mountain Economic Development Corporation (GMEDC) with funding provided by the Mount Ascutney Regional Commission (MARC) and the Vermont Department of Environmental Conservation (VT DEC) for the former Upper Valley Regional Landfill Corporation (UVRLC) landfill property, located at 7412 VT Route 113 in Thetford, Vermont (the Site). GMEDC is performing environmental due diligence as a *bona fide* prospective purchaser of the Site and is considered the User of this Phase II ESA. Additionally, GMEDC is currently the Successor Administrator of the estate and an enrollee in the Vermont Brownfields Reuse Environmental Liability Limitation Program (BRELLA). The Phase II ESA was undertaken pursuant to a request from the VT DEC for additional assessment to address the findings of a 2020 Phase I ESA and a 2021 data gap analysis.

The following recognized environmental conditions (RECs) were identified for the Site in the Phase I ESA:

- Controlled REC #1: The historic use of the property as an unlined solid waste landfill.
- REC #2: Evidence of dumping, primarily along the northern edge of the clearing, including a pile of at least ten 55-gallon drums, tires, scrap metal, and a partially buried and unidentified metal cylinder.
- REC #3: Material remaining within the perimeter of the collapsed building, including a 55-gallon drum and 5-gallon can of transmission fluid.

The following data gaps were identified for the Site:

1. Groundwater and surface water has been analyzed for a select number of contaminants since investigations began around 1980. Samples have been analyzed for volatile organic compounds (VOCs), inorganics, chemical oxygen demand (COD), and metals. Other contaminants are now known to be associated with landfill leachate that may not have been as well documents in the past, including per- and polyfluoroalkyl substances (PFAS), polychlorinated biphenyls (PCBs), dioxins, 1,4-dioxane, and semi-volatile organic compounds (SVOCs).
2. Discharge of a dissolved groundwater plume to nearby waterways has not been fully assessed. Surface water samples have been collected historically from the Ompompanoosuc River and Lake Fairlee outlet and showed no detectable levels of contaminants. However, the lack of detections may be attributed to dilution of contaminated groundwater discharge by surface water upon entering the river. Impacts to the Ompompanoosuc River and Lake Fairlee outlet could be assessed using other methodologies.
3. A small dump area has been reported by Lincoln Applied Geology (LAG) to be situated adjacent to the southernmost bend of the Lake Fairlee outlet, between the landfill and current Post Mills Community Water System. The dump was reported in LAG's Water Source Approval Application to contain corrugated sheet metal, quart-size oil cans, tires, and empty and rotted 55-gallon drums. In a somewhat differing report, LAG reported the dump to be a de minimis condition in their Phase I ESA, which measured approximately 20 cubic yards and contained wood, metal, shingles, and glass. This area has yet to be assessed.

The Site is comprised of one, 18-acre parcel, identified as parcel 01-02-57 by the Town of Thetford. A 6.6-acre closed landfill is located in the central/eastern portion of the Site. The landfill operated from 1974 to 1996 with final closure and capping occurring in 2001. The Site includes one collapsed building, identified as an abandoned storage building, and is also improved with a dirt driveway leading from VT Route 113 to the gated, cleared portion of the Site (including the former landfill). A groundwater monitoring well network, pump house (Post Mills Community Water Supply [PMCWS]), and gas vent system are presently in operation at the Site. The State of Vermont is responsible for post-closure monitoring of the former landfill. The Site is abutted to the north by the Ompompanoosuc River; to the east and southeast by vacant, cleared land, beyond which is an outlet from Lake Fairlee, to the southwest by a residence, and to the west by a residence and forested land, beyond which is VT Route 113. The Post Mills Airport is northeast of the Site on the opposite side of the Lake Fairlee outlet. The Village of Post Mills resides to the north and northwest of the Site. The former Malmquist Mills (SMS #2010-4063), manufacturers of wooden spools and other products, resides west of Route 113 and the Ompompanoosuc River, approximately 500 feet west of the Site.

Phase II ESA field work was performed on September 14, 2022, November 21 and 22, 2022, December 14, 2022, and April 25 and 26, 2023 and included assessments of soil, groundwater, drinking water, and building materials. Three drinking water supply wells, three overburden monitoring wells and six bedrock monitoring wells were sampled for PFAS, priority pollutant metals (PP Metals), SVOCs, VOCs, PCBs, dioxins/furans, chloride, sodium and COD. Five surficial soil samples were collected and analyzed for VOCs, total petroleum hydrocarbons (TPH), SVOCs, and PP Metals. Stone subcontracted with KD Associates, Inc. of South Burlington, Vermont to perform a buildings material assessment.

TPH was detected in surficial soil at the Site above the residential EPA Regional Screening Level (RSL) but below the industrial EPA RSL. PFAS and 1,4-dioxane were detected in groundwater at the Site above the Vermont Groundwater Enforcement Standards (VGES). Chloride was detected in a public community drinking water supply well above the Secondary Maximum Contaminant Level (SMCL). Hazardous building materials were not identified during an assessment of the collapsed building located at the Site.

Based on the results of the Phase II ESA, Stone makes the following conclusions:

1. TPH contamination is present in surficial soil in the northern and southern portions of the Site above the residential EPA RSL but below the industrial EPA RSL.
    i. The extent of soil contamination appears to be localized around a pile of 55-gallon drums in the northern portion of the Site and near a 55-gallon drum located within a collapsed building on the southern portion of the Site.
    ii. Recent sampling of overburden monitoring wells indicates the risk posed to groundwater by the surficial soil impacts is low. The current and proposed uses of the Site (closed landfill and solar array) indicate the risk posed to sensitive receptors is low. Additionally, land use restrictions are in place preventing residential use of the Site.
2. PFAS and 1,4-dioxane contamination is present in the overburden and bedrock aquifers at the Site above VGES.
    i. Elevated levels of PFAS and/or 1,4-dioxane are present in post-closure monitoring wells (BR-3 and MW-101D) located west and downgradient of the landfill disposal area. Non-detectable levels of these contaminants were reported in downgradient off-Site wells (BR-4 and Former Supply Well) indicating the extent and magnitude of groundwater impacts has been adequately defined.

3. Chloride was detected in an active public community water supply well above the SMCL indicating the odor and appearance of the water may be adversely affected.
    i. The PMCWS well is located southeast of the landfill in an apparent upgradient location and is routinely sampled for chloride as part of the landfill's post-closure monitoring program. The concentration detected in November 2022 is the highest reported to date and is considered an outlier based on previous sampling results.
4. Hazardous building materials were not identified during an assessment of the collapsed building located at the Site.
    i. Construction and demolition waste can be disposed of at a non-hazardous waste receiving facility.

Based on these conclusions and data collected, Stone makes the following recommendations:

- The pile of drums, metal and other materials identified in the northern portion of the Site should be assessed and disposed of at an approved facility in accordance with state and local requirements.
- Post-closure monitoring of the well network should continue in accordance with the landfill post-closure plan; however, PFAS and 1,4-dioxane should be added to the monitoring plan.
- The PMCWS well should be resampled to verify the chloride concentration detected and rule out sample collection and/or laboratory errors. Stone has conveyed the results to both the VT DEC and the Post Mills Water Association (PMWA). The PMWA has indicated they will be resampling the PMCWS well imminently.
- Construction and demolition waste generated during removal of the collapsed building can be disposed of at a non-hazardous waste receiving facility. All drums and other containers located near the collapsed building should be assessed and disposed of at an approved facility in accordance state and local requirements.
- A Certificate of Completion (COC) should be issued for the Site as all RECs have been adequately investigated and delineated and no further assessment is deemed necessary.

Phase II Environmental Site Assessment Report: Former UVRLC Property, 7412 VT Route 113, Thetford, Vermont

Cover Photo: View of former Landfill. Photograph taken by Stone field staff, November 23, 2020.

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1. Introduction

This Phase II Environmental Site Assessment (ESA) has been prepared by Stone Environmental, Inc. (Stone) on behalf of Green Mountain Economic Development Corporation (GMEDC) with funding provided by the Mount Ascutney Regional Commission (MARC) and the Vermont Department of Environmental Conservation (VT DEC) for the former Upper Valley Regional Landfill Corporation (UVRLC) landfill property located at 7412 VT Route 113 in Thetford, Vermont (the Site). GMEDC is performing environmental due diligence as a *bona fide* prospective purchaser of the Site and is considered the User of this Phase II ESA. GMEDC intends to lease a portion of the Site to Thetford Post Mills Solar LLC (TPMS), a subsidiary of Norwich Solar Technologies, Inc., which plans to develop a solar project at the Site. This report is made possible by a grant from the State of Vermont through the Agency of Commerce and Community Development (ACCD), Department of Economic Development.

Since the year 2000, the State of Vermont has assumed responsibility for closure and post-closure monitoring at the landfill. GMEDC has entered the Brownfields Reuse Environmental Liability Limitation Program (BRELLA) as the prospective purchaser of the Subject Property and is currently the Successor Administrator of the estate; the VT DEC subsequently assigned Sites Management Section (SMS) #2020-4971 to the Site for the BRELLA enrollment.

As a requirement to enroll in BRELLA, a Phase I ESA was carried out by Stone in December 2020 on behalf of GMEDC. The following RECs were identified in the Phase I ESA for the Site:

- Controlled REC #1: The historic use of the property as an unlined solid waste landfill.
- REC #2: Evidence of dumping, primarily along the northern edge of the clearing, including a pile of at least ten 55-gallon drums, tires, scrap metal, and a partially buried and unidentifiable metal cylinder.
- REC #3: Material remaining within the perimeter of the collapsed building, including a 55-gallon drum and 5-gallon can of transmission fluid.

In 2021, Stone conducted a file review to identify potential data gaps, prior to redeveloping the Site. The VT DEC Solid Waste Management Program (SWMP) provided Stone with paper and electronic files associated with the former use of the Site as a landfill. The following data gaps were identified for the Site:

1. Groundwater and surface water has been analyzed for a select number of contaminants since investigations began around 1980. Samples have been analyzed for volatile organic compounds (VOCs), inorganics, chemical oxygen demand (COD), and metals. Other contaminants are now known to be associated with landfill leachate that may not have been as well documents in the past, including per- and polyfluoroalkyl substances (PFAS), polychlorinated biphenyls (PCBs), dioxins, 1,4-dioxane, and semi-volatile organic compounds (SVOCs).
2. Discharge of a dissolved groundwater plume to nearby waterways has not been fully assessed. Surface water samples have been collected historically from the Ompompanoosuc River and Lake Fairlee outlet and showed no detectable levels of contaminants. However, the lack of detections may be

attributed to dilution of contaminated groundwater discharge by surface water upon entering the river. Impacts to the Ompompanoosuc River and Lake Fairlee outlet could be assessed using other methodologies.

3. A small dump area has been reported by Lincoln Applied Geology (LAG) to be situated adjacent to the southernmost bend of the Lake Fairlee outlet, between the landfill and current Post Mills Community Water System. The dump was reported in LAG's Water Source Approval Application to contain corrugated sheet metal, quart-size oil cans, tires, and empty and rotted 55-gallon drums. In a somewhat differing report, LAG reported the dump to be a de minimis condition in their Phase I ESA, which measured approximately 20 cubic yards and contained wood, metal, shingles, and glass. This area has yet to be assessed.

The Phase II ESA was undertaken pursuant to a request from the VT DEC for additional assessment to address the findings of the Phase I ESA and data gap analysis.

As Successor Administrator of the estate, GMEDC's contact information is:

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1.1. Site Description

The Site is located at 43.88043° north latitude and 72.25898° west longitude at an elevation of approximately 720 feet above mean sea level in Thetford, Orange County, Vermont (Figure 1, Appendix A). The Site is comprised of one, 18-acre parcel, identified as parcel 01-02-57 by the Town of Thetford. The Site is abutted to the north by the Ompompanoosuc River; to the east and southeast by vacant, cleared land, beyond which is an outlet from Lake Fairlee, to the southwest by a residence, and to the west by a residence and forested land, beyond which is VT Route 113. The Post Mills Airport is northeast of the Site on the opposite side of the Lake Fairlee outlet. The Village of Post Mills resides to the north and northwest of the Site. The former Malmquist Mills (SMS #2010-4063), manufacturers of wooden spools and other products, resides west of VT Route 113 and the Ompompanoosuc River, approximately 500 feet west of the Site. A vicinity map is provided as Figure 2 in Appendix A.

The Site includes one collapsed building, identified as an abandoned storage building in SMWP files. The building appears to have been one story with a concrete masonry unit (CMU) foundation. The parcel is also improved with a dirt driveway in the southwestern portion of the Site leading from VT Route 113 to the gated, cleared portion of the Site (including the former landfill). A groundwater monitoring well network, pump house (Post Mills Community Water Supply), and gas vent system are presently in operation on the property.

The Site is not serviced by municipal water or sewer.

1.2. Site Background

Prior to 1974, historical aerial photographs and reference in a warranty deed indicate that the Site was used for agriculture. A 6.6-acre landfill was first approved for development as a sanitary landfill on November 1, 1971,

and began operating around May 6, 1974. Both domestic and commercial refuse was accepted by the landfill, including occasional asbestos-containing material (ACM).

In the early 1980s, VOCs were identified in nearby monitoring wells and (reportedly) one private drinking water well (Braley residence located south of the Site). A replacement water supply well for adjacent, downgradient residential properties was installed on March 16, 1988 to the southwest of the landfill on the opposite side of VT Route 113 ("Former Supply Well", Figure 3, Appendix A). On approximately September 7, 1989, the landfill ceased accepting waste for disposal due to a Consent Order entered by the UVRLC and the Vermont Environmental Board.

Following installation of the water supply well, a pump test carried out in 1990 revealed that the water supply well and one nearby residential well (Demers residence) were drilled into a fracture zone hydraulically connected to a contaminated well on the UVRLC property. This observation was supported by low levels of VOCs detected in the wells. Specifically, 1,1-dichloroethane was detected in the bedrock water supply well, and dichlorodifluoromethane and 1,1-dichloroethane were detected in Demer's private well, suggesting that contaminants were migrating from the unlined landfill to the Demer's well.

In 1996, an Administrative Order was issued to close the landfill, install additional groundwater monitoring wells, monitor groundwater and surface water, submit a plan for a public community water system, provide bottled water to affected residences, and complete post-closure landfill inspections. By 1998, the UVRLC had not complied with the order. A settlement was reached in August 2000 between Frank L. Barker, Jr., Barker-Sargent Corporation, 14 neighboring landowners (i.e., the Braley Plaintiffs), and the State of Vermont (the State). As part of the settlement, the State assumed responsibility for closure and post-closure monitoring of the landfill. In the spring of 2001, the landfill was properly closed, which included reshaping, capping with a multi-layer final cover system, and installing a gas vent system. A new water supply system for adjacent landowners, the Post Mills Community Water System, was also installed in 2001.

Figure 3 in Appendix A shows the extent of the post-closure monitoring well network, former and current drinking water supply wells, current community water supply system infrastructure, and historical sample locations. Further historical Site information can be obtained through Stone's 2021 *File Review and Data Gap Analysis – Former Upper Valley Regional Landfill Corporation Property* that is on file with the VT DEC.

2. Methods

Phase II ESA field work was performed by Stone in September, November, and December, 2022, and in April 2023. Sample locations are shown on Figure 4 in Appendix A. Field notes are provided as Appendix B, except as noted below in Section 2.1.

2.1. Work Plan Deviations

The following work plan deviations occurred:

- Soils were screened with a photoionization detector (PID) and logged in accordance with Stone's SOP; however, the field notes documenting these observations/screening values were inadvertently lost and have not been located despite Stone's best efforts. According to the recollection of the field team, soils encountered during the soil assessment consisted of dry, brown, medium to coarse sand. No odors or visual indications of a release to soils were noted and all PID values were below background (< 1 parts per million by volume [ppm/v]). In accordance with the work plan, soil samples were collected from a surficial depth as no contamination was observed in the field. Given TPH concentrations exceed applicable residential standards, the absence of a written record of field observations/screening values does impact the usability of the data as Stone is unable to interpret the organic content of soil and how contaminants might migrate based on lithology. However, given the current and proposed uses of the Site, the risk posed to sensitive receptors via contaminant migration is considered low.
- Stone was unable to assess soil directly beneath 55-gallon drums located in a pile on the north side of the Site and within a collapsed building on the south side of the Site. The presence of jagged and unstable building materials/scrap metal, nails and thick vegetation posed a safety hazard and limited access to the drums with borehole equipment. Soil borings were advanced as close as possible to the drums and surficial soil samples were collected at all boring locations as no contamination was noted as described above. This deviation does impact the usability of the data; however, given the current and proposed uses of the Site, the risk posed to sensitive receptors is considered low.
- The drinking water supply well located on the Braley property (Tag# 46832) was not sampled. An initial assessment of the well performed in September 2022 by a licensed well driller using a digital meter indicated water was present in the well at a depth of approximately 230 feet below ground surface (bgs). However, a follow-up assessment performed by Stone during the November 2022 sampling event using a water level probe indicated the well was dry with an apparent sediment obstruction at approximately 160 feet bgs. Based on Stone's assessment, the well was determined to not be viable and could not be sampled. This deviation was promptly relayed to the VT DEC after the November 2022 sampling event. As noted below, a former supply well located southwest of the Site was sampled as a replacement for the Braley private well location during a remobilization to the Site in April 2023; therefore, this deviation does not affect Stone's ability to interpret the results or make reliable conclusions based on the data collected.
- All targeted post-closure monitoring wells were sampled during the November 2022 sampling event except for MW-1. The well diameter was too small, and the water depth was too deep to

accommodate the well pumps on hand. Stone returned to the Site approximately two weeks later on December 14, 2022 and this well was successfully sampled on that date. This deviation was relayed to the VT DEC prior to the remobilization effort and does not affect Stone's ability to interpret the results or make reliable conclusions based on the data collected.

- Monitoring well BR-4 was sampled instead of the drinking water supply well identified as WRN#350 on the property to the west. Stone was unable to locate WRN#350 and the owner of the property to the west, Mr. Howard Stone, indicated the only well on his property is BR-4. Confirmation of the well ID was made after the November 2022 sampling event; therefore, Stone error coded the field notes and requested the laboratory amend the analytical report to reflect BR-4 was sampled. According to a review of the drill log, BR-4 was installed in 1990 as a post-closure bedrock monitoring well and is set at a depth of 422 feet bgs with bedrock occurring very near to the surface. This deviation was promptly relayed to the VT DEC after the November 2022 sampling event. The depth, construction, and location of BR-4 is very similar to WRN#350; therefore, this deviation does not affect Stone's ability to interpret the results or make reliable conclusions based on the data collected.
- In January 2023, Stone was notified by Pace Analytical, Inc. (Pace) that the aqueous samples collected during the November 2022 sampling event were not submitted to a sub lab for analysis of dioxins/furans. This laboratory issue was promptly relayed to the VT DEC. Due to this error, Stone remobilized to the Site in April 2023 to collect samples for dioxin/furan analysis. In addition, Stone sampled two monitoring wells (MW-101D and BR-3) and one drinking water supply well to the southwest (Former Supply Well) for PFAS and 1,4-dioxane analysis. Monitoring wells MW-101D and BR-3 were targeted to confirm the concentrations of PFAS and 1,4-dioxane detected during the initial sampling event in November 2022. The former supply well on the Hanchett property to the southwest was targeted in an effort to achieve delineation in the bedrock aquifer to the south/southwest given the drinking water supply well on the Braley property was not viable for sampling. The scope for the resampling event was approved by the VT DEC. This deviation does not affect Stone's ability to interpret the results or make reliable conclusions based on the data collected.

2.2. Soil Assessment

On September 14, 2022, Stone assessed soil near the pile of 55-gallon drums at four locations and one location near the 55-gallon drum located within the collapsed building (Figure 4, Appendix A). Soil borings (SB-1 through SB-5) were advanced to 4 feet bgs using a 1.25-inch diameter Geoprobe LS manual, direct push coring tool to collect continuous cores in disposable acetate sleeves. Soils were logged for texture, color, moisture content, and visual and olfactory evidence of contamination. Stone assessed soils for VOCs in the field using a hand-held PID from every 1-foot vertical interval. No evidence of contamination was noted therefore samples were collected from a surficial depth for analysis in accordance with the work plan.

Five discrete surficial soil samples were collected (one from each boring), placed into laboratory provided bottle ware, placed in an ice-filled cooler and shipped under chain of custody protocols to Pace for analysis of VOCs by EPA Method 8260, TPH by EPA Method 8015, SVOCs by EPA Method 8270, and priority pollutant metals (PP Metals) by EPA Methods 6010 and 7471. A field duplicate and a trip blank sample (VOCs only) were collected for analysis to assess data precision and accuracy.

2.3. Building Materials Assessment

Stone contracted with KD Associates, Inc. (KD Associates) of South Burlington, Vermont to assess the building materials of the collapsed storage building for lead-based paint and ACM. The building materials assessment was performed on September 14, 2022. No samples for asbestos were taken as ACM was not identified during the assessment. One composite sample of the expected waste stream from the demolition of

the structure was collected and analyzed for lead by Toxicity Characteristic Leaching Procedure (TCLP). A more detailed description of the building assessment efforts is included in KD's Asbestos Assessment and TCLP for Lead Reports provided in Appendix E.

2.4. Groundwater and Drinking Water Assessment

An initial sampling event was conducted by Stone in November 2022 to assess groundwater and drinking water in the vicinity of the Site. Additional sampling events were conducted in December 2022 and April 2023 to address sampling issues encountered during the initial event and subsequent laboratory errors as outlined in Section 2.1. The groundwater and drinking water assessment targeted three drinking water supply wells (Leibon Well, Former Supply Well and Post Mills Community Water Supply [PMCWS] Well), three overburden monitoring wells (MW-1, MW-101D and MW-2) and six bedrock monitoring wells (BR-1, BR-2, BR-3, BR-4, BR-201 and BR-202) as depicted on Figure 4 in Appendix A. Stone contracted with Wragg Brothers of VT, Inc. (Wragg Brothers) of Ascutney, Vermont to perform an assessment of inactive drinking water supply wells and to assist with activating and/or removing pumps to facilitate sampling. Wragg assisted Stone on September 14, 2022, November 21, 2022, and April 26, 2023. Tables 1 through 3 below and on the next page provide a summary of each sampling event including the wells targeted and the analysis performed.

Table 1: Summary of November 2022 Sampling Event – Groundwater & Drinking Water

Well ID	Analysis							
	PFAS (EPA 537.1)	PCBs (EPA 8082)	SVOCs (EPA 8270)	VOCs (EPA 8260)	PP Metals (EPA 6020/7470)	Dioxins/Furans (EPA 1613)	Chloride, Sodium and COD (EPA 300.0/6010/ 410.4)	SVOCs (1,4-Dioxane only) (EPA 8270)
MW-1	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	X	X	X	X	X	NS	X	NS
MW-101D	X	X	X	X	X	NS	X	NS
BR-1	X	X	X	X	X	NS	X	NS
BR-2	X	X	X	X	X	NS	X	NS
BR-3	X	X	X	X	X	NS	X	NS
BR-4	X	X	X	X	X	NS	X	NS
BR-201	X	X	X	X	X	NS	X	NS
BR-202	X	X	X	X	X	NS	X	NS
LEIBON WELL	X	X	X	X	X	NS	X	NS
FORMER SUPPLY WELL	NS	NS	NS	NS	NS	NS	NS	NS
PMCWS WELL	X	X	X	X	X	NS	X	NS

*Abbreviations: NS = No sample collected, or laboratory error resulted in no analysis; **X** = sample collected and analyzed as noted*

Table 2: Summary of December 2022 Sampling Event – Groundwater & Drinking Water

Well ID	Analysis							
	PFAS (EPA 537.1)	PCBs (EPA 8082)	SVOCs (EPA 8270)	VOCs (EPA 8260)	PP Metals (EPA 6020/7470)	Dioxins/Furans (EPA 1613)	Chloride, Sodium and COD (EPA 300.0/6010/ 410.4)	SVOCs (1,4-Dioxane only) (EPA 8270)
MW-1	X	X	X	X	X	X	X	NS
MW-2	NS	NS	NS	NS	NS	NS	NS	NS
MW-101D	NS	NS	NS	NS	NS	NS	NS	NS
BR-1	NS	NS	NS	NS	NS	NS	NS	NS
BR-2	NS	NS	NS	NS	NS	NS	NS	NS
BR-3	NS	NS	NS	NS	NS	NS	NS	NS
BR-4	NS	NS	NS	NS	NS	NS	NS	NS
BR-201	NS	NS	NS	NS	NS	NS	NS	NS
BR-202	NS	NS	NS	NS	NS	NS	NS	NS
LEIBON WELL	NS	NS	NS	NS	NS	NS	NS	NS
FORMER SUPPLY WELL	NS	NS	NS	NS	NS	NS	NS	NS
PMCWS WELL	NS	NS	NS	NS	NS	NS	NS	NS

*Abbreviations: NS = No sample collected; **X** = sample collected and analyzed as noted*

Table 3: Summary of April 2023 Sampling Event – Groundwater & Drinking Water

Well ID	Analysis							
	PFAS (EPA 537.1)	PCBs (EPA 8082)	SVOCs (EPA 8270)	VOCs (EPA 8260)	PP Metals (EPA 6020/7470)	Dioxins/Furans (EPA 1613)	Chloride, Sodium and COD (EPA 300.0/6010/ 410.4)	SVOCs (1,4-Dioxane only) (EPA 8270)
MW-1	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	NS	NS	NS	NS	NS	X	NS	NS
MW-101D	X	NS	NS	NS	NS	X	NS	X
BR-1	NS	NS	NS	NS	NS	X	NS	NS
BR-2	NS	NS	NS	NS	NS	X	NS	NS
BR-3	X	NS	NS	NS	NS	X	NS	X
BR-4	NS	NS	NS	NS	NS	X	NS	NS
BR-201	NS	NS	NS	NS	NS	X	NS	NS
BR-202	NS	NS	NS	NS	NS	X	NS	NS
LEIBON WELL	NS	NS	NS	NS	NS	X	NS	NS

Well ID	Analysis							
	PFAS (EPA 537.1)	PCBs (EPA 8082)	SVOCs (EPA 8270)	VOCs (EPA 8260)	PP Metals (EPA 6020/7470)	Dioxins/Furans (EPA 1613)	Chloride, Sodium and COD (EPA 300.0/6010/ 410.4)	SVOCs (1,4-Dioxane only) (EPA 8270)
FORMER SUPPLY WELL	X	NS	NS	NS	NS	X	NS	X
PMCWS WELL	NS	NS	NS	NS	NS	X	NS	NS

*Abbreviations: NS = No sample collected; **X** = sample collected and analyzed as noted*

A combination of submersible pumps (Geosub & bladder), peristaltic pumps and dedicated well pumps were used to obtain samples from the wells. With the exception of the PMCWS well location, samples were collected using dedicated HDPE tubing and low-flow sampling methodology for stabilization was used. The PMCWS sample was collected from the pump house tank inlet pipe, prior to any treatment and after the system was purged for a minimum of 10 minutes. Physical and chemical parameters, including dissolved oxygen (DO), pH, specific conductance, temperature, and oxidation-reduction potential (ORP) were measured using a calibrated multi-parameter water quality meter equipped with a flow-through cell. Turbidity was measured using a stand-alone turbidity meter.

All wells, expect the PMCWS well, were purged until the following parameters stabilized for three consecutive readings:

- pH ±0.1 unit;
- Specific Conductance ±3%;
- ORP ±10 millivolts (mV);
- DO ± 10%, or 3 consecutive readings below 0.5 mg/L;
- Temperature ±3%; and
- Turbidity ±10%, or 3 consecutive readings below 5 nephelometric turbidity units (NTU)

Following stabilization, samples were collected for analysis of PFAS, PCBs, SVOCs, PP Metals, VOCs, dioxins/furans, chloride, sodium, COD and 1,4 dioxane as noted in Tables 1 through 3. Samples were placed into laboratory provided bottle ware, placed in an ice-filled cooler and shipped under chain of custody protocols to Pace for analysis. Field duplicate and trip blank samples (VOCs only) were collected for analysis to assess data precision and accuracy.

2.5. Investigation Derived Waste

Investigative derived waste (IDW) generated during the Phase II ESA included excess soil generated from soil borings, decontamination water, purge water, sample tubing and personal protective equipment (PPE). Excess soil cuttings were used to backfill soil borings. Decontamination water and purge water was discharged to the ground surface. All PPE and tubing were disposed of as solid waste. Purge water generated at high flow due to activation of dedicated well pumps or use of high flow submersible pumps was dispersed using hay bales to dissipate flow and allow for infiltration. Hay was thin spread after purging was complete.

3. Evaluation of Investigation Results

Analytical results are summarized in Appendix C in the tables listed below. A PFAS time series table (C-22) that depicts current and historical analytical results for groundwater is included in Appendix C. Full analytical laboratory reports are provided as Appendix D.

- Table C-1: Metals Analytical Results - Groundwater
- Table C-2: Metals Analytical Results - Private Drinking Water
- Table C-3: Metals Analytical Results - Public Water Supply
- Table C-4: PFAS Analytical Results - Groundwater
- Table C-5: PFAS Analytical Results - Private Drinking Water
- Table C-6: PFAS Analytical Results - Public Water Supply
- Table C-7: PCBs Analytical Results - Groundwater
- Table C-8: PCBs Analytical Results - Private Drinking Water
- Table C-9: PCBs Analytical Results - Public Water Supply
- Table C-10: SVOCs Analytical Results - Groundwater
- Table C-11: SVOCs Analytical Results - Private Drinking Water
- Table C-12: SVOCs Analytical Results - Public Water Supply
- Table C-13: VOCs Analytical Results - Groundwater
- Table C-14: VOCs Analytical Results - Private Drinking Water
- Table C-15: VOCs Analytical Results - Public Water Supply
- Table C-16: Wet Chemistry Analytical Results - Groundwater
- Table C-17: Wet Chemistry Analytical Results - Private Drinking Water
- Table C-18: Wet Chemistry Analytical Results - Public Water Supply
- Table C-19: Dioxins/Furans Analytical Results - Groundwater
- Table C-20: Dioxins/Furans Analytical Results - Private Drinking Water
- Table C-21: Dioxins/Furans Analytical Results - Public Water Supply
- Table C-22: PFAS Timeseries - Groundwater
- Table C-23: Metals Analytical Results - Soil
- Table C-24: SVOCs Analytical Results - Soil
- Table C-25: TPH Analytical Results - Soil
- Table C-26: VOCs Analytical Results - Soil

3.1. Relevant Regulatory Criteria

Relevant regulatory criteria for samples collected during the Phase II ESA include:

- Soil:
  - Vermont Soil Standards (VSS) for resident and non-resident properties published in the VT DEC's Investigation and Remediation of Contaminated Properties Rule (IRule; effective July 6, 2019) as Appendix A - § 35-APX-A1.
  - EPA Regional Screening Levels (RSLs) for residential and industrial soils, May 2023.

- Groundwater: Vermont Groundwater Enforcement Standards (VGES) published as Appendix 1 of Chapter 12 of the Vermont Environmental Protection Rules: Groundwater Protection Rule and Strategy, adopted July 6, 2019.
- Drinking Water:
  - Public water systems: Maximum Contaminant Level (MCL) and Secondary Maximum Contaminant Level (SMCL), Vermont Water Supply Rule, March 17, 2020.
  - Private drinking water: Vermont Health Advisory (VHA), Vermont Department of Health (DOH) Drinking Water Guidance, May 3, 2019.

3.2. Soil Assessment

Soils recovered from SB-1 through SB-5 generally consisted of dry, brown, medium to coarse sand from ground surface to a maximum exploratory depth of 4 feet bgs. No odors or visual indications of a release to soils were noted and all PID values were below background (< 1 ppm/v). Soil boring locations are depicted on Figure 4 in Appendix A.

3.2.1. Priority Pollutant Metals

PP Metals including beryllium, chromium, copper, lead, nickel, zinc, and mercury were detected above laboratory reporting limits in all five surficial soil samples; however, all detections were below applicable VSS and/or the EPA RSLs.

3.2.2. SVOCs

SVOCs were not detected above laboratory reporting limits in any of the surficial soil samples.

3.2.3. VOCs

Acetone was detected above the method detection limit but below the laboratory reporting limit in all five surficial soil samples; however, all detections were below applicable VSS and/or EPA RSLs. Acetone is a common laboratory contaminant. No other VOCs were detected above laboratory method detection or reporting limits.

3.2.4. Total Petroleum Hydrocarbons (TPH)

TPH was detected above laboratory reporting limits in all five surficial soil samples. TPH concentrations in SB-1-0.5, SB-2-0.5, and SB-3-0.5 exceeded the residential EPA RSL but were below the industrial EPA RSL as depicted in Table 4 on the next page and on Figure 7 in Appendix A.

Table 4: Summary of TPH above EPA RSLs - Soil

Sample ID	Sample Depth (feet bgs)	TPH (mg/Kg)
SB-1-0.5	0.5	**300**
SB-2-0.5	0.5	**230**
SB-3-0.5	0.5	**270**
SB-4-0.5	0.5	**76**
SB-5-0.5	0.5	**27**
Residential EPA RSL		96 to 230,000*
Industrial EPA RSL		440 to 3,500,000*

*Abbreviations: mg/Kg – milligrams per kilogram; RSL – EPA Regional Screening Level; **bold** indicates detection of analyte; shaded cell indicates exceedance of residential EPA RSL; * EPA RSLs are provided as a range for medium and high carbon aromatic and aliphatic TPH*

3.3. Building Materials Assessment

KD Associates did not observe any ACM in the collapsed building during the inspection; therefore, no samples were collected. TCLP lead was detected at a concentration of 0.40 milligrams per liter (mg/L) in a composite sample of the expected waste stream from the collapsed building. The TCLP lead concentration is below the Resource Conservation and Recovery Act (RCRA) hazardous waste limit of 5 mg/L. A more detailed description of the building assessment efforts is included in KD's Asbestos Assessment and TCLP for Lead Reports provided in Appendix E.

3.4. Groundwater and Drinking Water Assessment

Groundwater elevations for the November 2022 and April 2023 sampling events are shown in Table 5, below. Measurements for the December 2022 event are not depicted as only one well was accessed. Relative casing elevations were obtained from a 1995 report titled "Hydrogeologic Summary of the Upper Valley Regional Landfill in Post Mills, Vermont (Town of Thetford)" prepared by Caswell, Eicher and Hill, Inc. Seasonal variations in the groundwater water table was evident. In general, a higher water table was observed during the spring sampling that occurred in April 2023. The potentiometric surface in the overburden and bedrock aquifers indicate groundwater flow is generally to the west/southwest, which is consistent with historical data. Figures 5 and 6 depict groundwater flow in the overburden and bedrock aquifers, respectfully.

Table 5: Summary of Groundwater Elevations

Well ID	Well Type	Relative Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)	
			November 2022	April 2023
MW-1	Overburden Monitoring Well	589.34	547.52	NM
MW-2	Overburden Monitoring Well	568.83	554.36	556.64
MW-101D	Overburden Monitoring Well	623.80	549.65	551.58
BR-1	Bedrock Monitoring Well	622.92	581.28	582.31
BR-2	Bedrock Monitoring Well	624.20	548.25	546.73
BR-3	Bedrock Monitoring Well	585.90	545.52	545.25

Well ID	Well Type	Relative Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)	
			November 2022	April 2023
BR-4	Bedrock Monitoring Well	545.05	536.80	537.08
BR-201	Bedrock Monitoring Well	NM	NM	NM
BR-202	Bedrock Monitoring Well	NM	Artesian Flow	NM
LEIBON WELL	Inactive Private Drinking Water Supply Well	562.57	539.00	540.47
FORMER SUPPLY WELL	Inactive Public Drinking Water Supply Well	589.20	NM	530.49
PMCWS	Active Public Drinking Water Supply Well	NM	NM	NM

Abbreviations: amsl - above mean sea level; NM – not measured

Table 6 presents equilibrated values for physical and chemical parameters from the sampling events. Negative ORP values were noted at one overburden well (MW-101D) and several bedrock locations including the Leibon well indicating reducing groundwater conditions. Oxidizing conditions were noted at overburden wells MW-1 and MW-2 and two bedrock locations: former supply well and PMCWS well. Low DO concentrations corresponded with negative ORP values and are indicative of an anaerobic environment at most locations. Slight acidic to slightly basic pH values were noted throughout the well network. Specific conductance values, indicating concentration of inorganic dissolved solids, were notably high at MW-101D and BR-3.

Table 6: Summary of Physical & Chemical Properties – Groundwater & Drinking Water

Well ID	Date	Temperature (°C)	pH (s.u.)	DO (mg/L)	ORP (mV)	Specific Conductivity (µS/ cm)	Turbidity (NTU)
MW-1	12/14/22	6.1	7.1	8.09	77	240	0.1
MW-2	11/21/22	8.2	6.72	5.45	249	490	0.1
	4/25/23	5.3	6.97	8.52	113	500	0.1
MW-101D	11/22/22	11.3	6.34	0.37	-25	1235	0.9
	4/25/23	11.0	6.46	0.0	-68	1262	0
BR-1	11/22/22	9.3	8.01	0.16	-178	190	1.1
	4/25/23	10.8	8.24	0	-101	190	2.2
BR-2	11/22/22	10.0	6.83	0.11	-163	557	0.1
	4/25/23	10.0	6.84	0.0	-36	568	0
BR-3	11/22/22	9.4	8.04	0.06	-323	1290	7.6
	4/26/23	10.3	7.16	0.07	73	2510	11.7
BR-4	11/21/22	10.0	8.17	0.17	-89	298	3.3

Well ID	Date	Temperature (°C)	pH (s.u.)	DO (mg/L)	ORP (mV)	Specific Conductivity (µS/ cm)	Turbidity (NTU)
	4/26/23	10.1	8.27	0.07	-125	177	4.5
BR-201	11/21/22	7.8	7.94	0.12	-185	174	2.5
	4/25/23	9.3	8.23	0.17	-163	180	2.1
BR-202	11/21/22	7.8	8.17	0.24	-137	146	46.4
	4/25/23	9.1	8.04	3.53	212	152	54.0
LEIBON WELL	11/21/22	8.2	8.70	0.14	-129	284	32.0
	4/25/23	8.5	8.59	0	-186	293	11.9
FORMER SUPPLY WELL	4/25/23	8.6	7.72	7.05	123	272	14.0
PMCWS	11/22/22	10.20	6.87	3.92	198.20	201.90	0.02
	4/25/23	7.6	8.09	3.80	111	160	NM

Abbreviations: ORP = oxygen reduction potential; mV = millivolts; s.u. = standard units; pH = log hydrogen ion concentration; DO = dissolved oxygen; mg/L = milligrams per liter; µS/cm = microSiemens per centimeter; NTU = nephelometric turbidity units; °C = degrees centigrade; NM = Not Measured

3.4.1. Priority Pollutant Metals

Select PP Metals including chromium, copper, arsenic, lead, nickel, and/or zinc were detected above laboratory reporting limits in all monitoring wells except for MW-1; however, all detections were below VGES. Select PP Metals were detected in drinking water supply wells; however, all detections were below applicable VGES, VHA, MCL and/or SMCL.

3.4.2. PFAS

PFAS were detected above laboratory reporting limits in monitoring wells BR-3, MW-101D, MW-1 and MW-2 as depicted in Table 7 (next page) and on Figure 8 in Appendix A. In November 2022, the total regulated PFAS concentration detected in BR-3 (31 nanograms per liter [ng/L]) exceeded the VGES (20 ng/L). In April 2023, the total regulated PFAS concentration detected in BR-3 (5.6 ng/L) decreased to below the VGES. The predominant PFAS detected was PFOA. PFAS were not detected above laboratory reporting limits in the drinking water supply wells.

Monitoring wells at the Site have been sampled for PFAS periodically since 2018. A timeseries table depicting current and historical results is provided in Appendix C as Table C-22. PFAS concentrations have fluctuated over time without a clear trend. The concentration detected at BR-3 in November 2022 is the highest reported to date.

Table 7: Summary of PFAS above VGES – Groundwater & Drinking Water

Well ID	Date	Total Regulated PFAS (ng/L)
MW-1	12/14/22	**3.6**
MW-2	11/21/22	**3.0**
MW-101D	11/22/22	**16.0**
	4/25/23	**20**
BR-1	11/22/22	2.0 U
BR-2	11/22/22	1.9 U
BR-3	11/22/22	**31**
	4/25/23	**5.6**
BR-4	11/21/22	2.1 U
BR-201	11/21/22	1.9 U
BR-202	11/21/22	2.0 U
LEIBON WELL	11/21/22	1.8 U
FORMER SUPPLY WELL	4/25/23	2.0 U
PMCWS	11/22/22	1.8 U
VGES/VHA/MCL		20

*Abbreviations: ng/L = nanograms per liter, VGES/VHA/MCL = sum of PFOA, PFOS, PFHxS, PFHpA and PFNA, **Bold** results indicate detections of the analyte, shaded results indicate and exceedance of an enforcement standard(s), U = not detected above laboratory reporting limits*

3.4.3. PCBs

PCBs were not detected above laboratory reporting limits in the monitoring wells or drinking water supply wells.

3.4.4. Dioxins/Furans

Select dioxins/furans were detected above method detection limits but below laboratory reporting limits in monitoring wells MW-1, BR-2, and BR-201. No exceedances of VGES were noted. Dioxin/furans were not detected above laboratory method detection limits or reporting limits in the drinking water supply wells.

3.4.5. VOCs

Select petroleum and chlorinated VOCs were detected above laboratory method detection limits and/or laboratory reporting limits in monitoring wells BR-3, BR-4, BR-201 and MW-101D; however, all detections were below VGES. VOCs were not detected above laboratory method detection limits or laboratory reporting limits in the drinking water supply wells.

3.4.6. SVOCs

1,4-dioxane was detected above laboratory reporting limits in monitoring wells BR-3 and MW-101D as depicted in Table 8 (next page) and on Figure 9 in Appendix A. In November 2022, the concentration of 1,4-dioxane detected in BR-3 (2.0 micrograms per liter [µg/L]) and MW-101D (2.6 µg/L) exceeded the VGES (0.3 µg/L). In April 2023, the concentration of 1,4-dioxane decreased in BR-3 (0.63 µg/L) and MW-101D (2.3 µg/L) but remained above the VGES. No other SVOCs were detected above laboratory reporting limits in the monitoring wells. SVOCs were not detected above laboratory method detection limits or laboratory reporting limits in the drinking water supply wells.

Table 8: Summary of 1,4-dioxane above VGES – Groundwater & Drinking Water

Well ID	Date	1,4-dioxane (μg/L)
MW-1	12/14/22	0.21 U
MW-2	11/21/22	0.2 U
MW-101D	11/22/22	**2.6**
	4/25/23	**2.3**
BR-1	11/22/22	0.2 U
BR-2	11/22/22	0.2 U
BR-3	11/22/22	**2.0**
	4/25/23	**0.63**
BR-4	11/21/22	0.21 U
BR-201	11/21/22	0.21 U
BR-202	11/21/22	0.21 U
LEIBON WELL	11/21/22	0.19 U
FORMER SUPPLY WELL	4/25/23	0.2 U
PMCWS	11/22/22	0.2 U
VGES/VHA/MCL		0.3

*Abbreviations: μg/L = micrograms per liter, **Bold** results indicate detections of the analyte, shaded results indicate and exceedance of an enforcement standard(s), U = not detected above laboratory reporting limits*

3.4.6.1. COD, Chloride and Sodium

COD was not detected above laboratory reporting limits in the monitoring wells or drinking water supply wells.

Chloride was detected above laboratory reporting limits in monitoring wells MW-1, BR-1, BR-3, BR-4, and MW-101D, ranging in concentration from 1,200 μg/L (BR-1) to 350,000 μg/L (BR-3); there is no applicable VGES for chloride. Chloride was detected above laboratory reporting limits in the Leibon Well and PMCWS drinking water supply locations. The chloride concentration detected in the PMCWS well (1,200,000 μg/L) exceeds the SMCL (250,000 μg/L). An exceedance of the SMCL indicates the odor and appearance of the water may be adversely affected. The PMCWS well is routinely sampled for chloride as part of the post-closure sampling program. The chloride concentration detected in November 2022 is the highest reported to date.

Sodium was detected above laboratory reporting in all monitoring wells sampled for this analyte, ranging in concentration from 2,200 μg/L (MW-2 and BR-2) to 82,000 μg/L (BR-3); there is no applicable VGES for sodium. Sodium was detected above laboratory reporting limits in the Leibon Well and PMCWS drinking water supply locations; however, all detections were below the applicable SMCL.

4. Quality Assurance and Quality Control

4.1. Field Duplicates

Field duplicate samples were collected for each media sampled during the Phase II ESA field work. Field duplicate sample results are summarized in Tables C-1, C-4, C-7, C-10, C-13, C-16, C-19, C-23, C-24, C-25, and C-26 provided as Appendix C.

To assess precision of the analytical results, relative percent difference (RPD) values were calculated for each primary-duplicate sample pair using the following formula:

$$RPD = \frac{|C_1 - C_2|}{\frac{C_1 + C_2}{2}} \times 100$$

Where: C1 = Concentration of a given target analyte in the Primary Sample, and

C2 = Concentration of a given target analyte in the Field Duplicate sample

Field duplicates were collected from SB-3-0.5 in September 2022, BR-2 in November 2022 and from MW-101D in April 2023.

For soil, RPD values could not be calculated for SVOCs due to non-detectable results for the primary and/or duplicate samples. RPD values were calculated for PP Metals (2% to 7%), TPH (4%), and VOCs (32%) and all were within the EPA acceptance criteria of 50% for the solid matrix.

For groundwater, RPD values could not be calculated for PCBs, VOCs, COD, chloride, or dioxins/furans due to non-detectable results for the primary and/or duplicate samples. RPD values were calculated for PP metals (0% to 39%), PFAS (3% to 20%), and SVOCs (0%). RPD values for PFAS and SVOCs were within the EPA acceptance criteria of 30% for aqueous matrices. The only RPD value outside the EPA acceptance criteria was copper in BR-2 (39%). The detection of copper in BR-2 is well below the VGES and copper was not detected in any other wells above applicable standards. A review of post-closure monitoring data for BR-2 indicates the current detection is similar to historical results; therefore, the elevated RPD value is not considered a finding that would impact the usability of the data.

4.2. Trip Blanks

Trip blanks were shipped with soil and water samples analyzed for VOCs and/or PFAS.

VOC and PFAS were not detected above laboratory reporting limits in the trip blank samples.

4.3. Equipment Blanks

Equipment blanks (EB-112222 and EB-042523) were collected from decontaminated field equipment and analyzed for PFAS. PFAS were not detected above laboratory reporting limits in either sample.

4.4. Field Reagent Blanks

Field reagent blanks (FRB-112122 and FRB-042523) were collected and analyzed for PFAS. PFAS were not detected above laboratory reporting limits in the field reagent blank samples.

5. Conceptual Site Model

The following Conceptual Site Model (CSM) includes a discussion of the known physical, geologic, and hydraulic attributes of the Site and surrounding area, how contaminants of concern were released at the Site, transport pathways, fate mechanisms, and potential routes of exposure to ecological and human receptors. The CSM provides the context from which site investigation activities are developed, and a framework to make sound Site management decisions.

5.1. Topography

The Site is located at an elevation of approximately 720 feet above mean sea level (amsl). Topography at the Site is partially shaped by historic use as a landfill and slopes steeply to the west along the western property line. To the east, topography undulates, sloping gradually eastward with a depression in the central-northwestern portion of the Site. Regionally, the areas to the northwest and south of the Site have steeper slopes and are at higher elevations, while the area to the east, which encompasses an outlet from Lake Fairlee, has relatively flat topography.

5.2. Geology

5.2.1. Bedrock

According to the *Geology of the Strafford Quadrangle* (1912), published by C.H. Hitchcock, and bedrock mapping performed by GEI as part of their *Final Data Summary Report* (1990), bedrock underlying the landfill consists of dark gray phyllite schist with interbedded micaceous quartzite of the Gile Mountain Formation. Bedrock elevation underlying the landfill ranges from approximately 510 feet to 580 feet amsl. Bedrock mounds are present to the southwest of the landfill and the northeastern portion of the landfill with a saddle between the two mounds. Bedrock outcrops are visible west of the Site adjacent to the Ompompanoosuc River and monitoring well BR-4.

Fracture trace analysis conducted using aerial photography has identified up to seven linear features underlying the landfill. A pump test conducted in 1990 indicates that two drinking water wells southwest of the Site and a bedrock monitoring well (BR-3) at the corner of Route 113 and the landfill access road may intersect the same water-bearing fracture.

5.2.2. Surficial Material

According to the *Surficial Geologic Map of Vermont* (1970) and the *Surficial Geology and Pleistocene History of Vermont* (1969), both published by David Stewart and Paul MacClintock, soils in the landfill area consist of glacial meltwater deposits with ablation till encountered in several locations. Soils to the west of the landfill disposal area have been reported to consist of mainly fine to medium sand and sand with gravel. Soils to the east of the landfill and adjacent to the Lake Fairlee outlet have been reported to consist of silty clay and clayey silt. The thickness of surficial deposits ranges from 0 to 15 feet near the bedrock outcrops southwest of the landfill and up to 75 feet in the central/northwestern portion of the landfill near MW-7 and MW-8 (Figure 3,

Appendix A). Soil borings advanced in the northern and southern portions of the Site as part of the Phase II ESA efforts identified medium to coarse sand to a maximum exploratory depth of 4 feet bgs.

5.3. Hydrology and Hydrogeology

The Site is located along the southwestern perimeter of the Middle Brook Sub-Watershed, part of the Upper Connecticut-Mascoma Watershed. The closest surface water body is the Ompompanoosuc River and an outlet from Lake Fairlee, which are surrounded by wetlands. The outlet from Lake Fairlee flows north, paralleling the eastern Site property boundary and coming within 160 feet of the boundary, before its confluence with the Ompompanoosuc River. The Ompompanoosuc River abuts the Site to the north before flowing south parallel and west of Route 113. Additionally, the northern tip (approximately 0.9 acres) of the Site is mapped as a Class 2 Wetland, indicating that it provides significant functions and values and is protected under the Vermont Wetland Rules. Surface runoff at the Site is expected to mimic surface topography; runoff may pond near the central-northwestern portion of the Site, or flow to the east toward the low-lying outlet from Lake Fairlee.

In fall 2022, the elevation of the water table in the overburden ranged from approximately 554 feet amsl in the east to 547 feet asl in the west. The potentiometric surface in the bedrock in fall 2022 ranged from approximately 582 feet amsl in the northeast to 535 feet amsl in the southwest. Groundwater appears to flow west/southwest from the Lake Fairlee outlet to the Ompompanoosuc River, partially due to damming of the Ompompanoosuc River near its intersection with VT Route 113. There may also be a groundwater divide in the northeastern portion of the site that results in shallow groundwater flowing east to the Lake Fairlee outlet in that portion of the Site.

As noted in a 1995 report titled "Hydrogeologic Summary of the Upper Valley Regional Landfill in Post Mills, Vermont (Town of Thetford)" prepared by Caswell, Eicher and Hill, Inc., the vertical groundwater flow direction varies based on the location of adjacent overburden and bedrock wells within the flow path. Near the central/western perimeter of the landfill disposal area, groundwater flows upward from the bedrock to the overburden, whereas to the southwest of the landfill near VT Route 113 and the access road to the landfill groundwater flows downward from the overburden to the bedrock.

Hydraulic conductivity has been estimated to be $2x10^{-3}$ centimeters per second in one overburden well, screened in sand with silt and gravel deposits. This estimate has not been confirmed by tests elsewhere on-site.

5.4. Release Mechanisms

Prior to constructing the landfill cap, precipitation leached through the buried waste in the unlined Upper Valley Regional Landfill and infiltrated downward to the water table, contaminating the overburden aquifer. Upon reaching the water table, leachate mixed with groundwater and migrated further downward into the bedrock aquifer, traveling through more transmissible fracture zones.

5.5. Contamination Distribution, Fate, and Transport

Overburden and bedrock monitoring wells west of the landfill have historically shown contamination attributed to the landfill, most notably VOCs, metals, and inorganics (sodium and chloride). Recent sampling of on-Site wells west of the landfill indicates additional contaminants (PFAS and 1,4-dioxane) are present at concentrations above VGES; however, these contaminants were not detected in downgradient off-Site wells. Additionally, sampling of on-Site wells conducted by the VT DEC in 2021 indicates manganese concentrations remain above VGES. VOCs have reportedly been detected occasionally at low concentrations in nearby drinking water supply wells, but the analytical data to support this claim was not available in files

provided by VT DEC SWMP. Recent sampling of drinking water supply wells west and east of the landfill reported non-detectable levels of VOCs and all other target analytes were either non-detect or below applicable enforcement standards, with the exception of chloride in the Post Mills Community Water Supply (PMCWS) well (exceedance of SMCL). No surface water contamination has been detected in the Ompompanoosuc River and Lake Fairlee outlet, possibly due to the dilution of leachate by surface water upon discharging to the water body. Monitoring wells and nearby drinking water supply wells were assessed in 2022/2023 for other contaminants typical of unlined landfills, including PCBs and dioxin/furans; all detections were below applicable standards.

Both petroleum and chlorinated VOCs have been detected in monitoring wells. Benzene, ethylbenzene, 1,2,4-trimethyl-benzene, toluene, and xylene have been detected above laboratory reporting limits with benzene and 1,2,4-trimethylbenzene detected above VGES in BR-1 in 2003. A range of chlorinated VOCs have been detected above laboratory reporting limits; the most recent detections above VGES were 1,1-dichloroethane in BR-2 in 2002 and MW-101D from 2003 to 2006 (excluding spring 2005), and possibly carbon tetrachloride in 2002 in MW-101D. In fall 2022, Stone sampled monitoring wells and drinking water supply wells for VOCs. Several petroleum and chlorinated VOCs were detected above laboratory method detection limits and/or laboratory reporting limits in select monitoring wells (BR-3, BR-4, BR-201 and MW-101D); however, all detections were below VGES. Additionally, sampling of nearby drinking water supply wells for VOCs in fall 2022 reported non-detectable levels of VOCs.

Elevated metal concentrations including iron, zinc, and manganese have been detected in monitoring wells above enforcement standards or guidelines. Elevated concentrations are widespread in both overburden and bedrock monitoring wells with the highest concentrations immediately west and southwest of the landfill. Likewise, sodium and chloride have historically exhibited elevated concentrations to the west of the landfill; however, the highest concentrations have been detected at monitoring and drinking supply wells along VT Route 113. In fall 2022, Stone sampled monitoring wells and nearby drinking water supply wells for PP Metals, sodium and chloride. All detections were below applicable standards, with the exception of chloride in the PMCWS well (1,200,000 μg/L), which exceeded the SMCL (250,000 μg/L). An exceedance of the SMCL indicates the odor and appearance of the water may be adversely affected. The PMCWS well is routinely sampled for chloride as part of the post-closure sampling program. The chloride concentration detected in fall 2022 is the highest reported to date and is considered an outlier based on historical results.

Overburden and bedrock monitoring wells have been periodically sampled for PFAS since 2018. Slight exceedances of the VGES (20 ng/L) were reported in on-Site overburden and bedrock wells west of the landfill in 2019 and 2020: MW-101D (21 ng/L; October 2019) and in and BR-2 (20.1 ng/L; October 2020). In fall 2022, Stone sampled monitoring wells and nearby drinking water supply wells for PFAS. An exceedance of the VGES was reported in one on-Site bedrock monitoring well (BR-3; 31 ng/L); however, all other on-Site monitoring wells, a downgradient off-Site bedrock monitoring well (BR-4), and nearby drinking water supply wells reported either non-detectable levels of PFAS or concentrations well below applicable standards. Results from a limited resampling event conducted in spring 2023 indicated PFAS concentrations in BR-3 (5.6 ng/L) decreased to below VGES. Additionally, non-detectable levels of PFAS were reported in an inactive downgradient drinking water supply well (Former Supply Well) to the southwest.

Elevated concentrations of 1,4-dioxane up to 2.6 μg/L have been detected in on-Site overburden and bedrock monitoring wells west of the landfill. Concentrations of 1,4-dioxane (up to 2.6 μg/L) detected in monitoring wells MW-101D and BR-3 in fall 2022 and spring 2023 exceeded the VGES (0.3 μg/L); however, non-detectable levels were reported for all other on-Site monitoring wells, a downgradient off-Site bedrock monitoring well (BR-4), and nearby/downgradient drinking water supply wells.

Surficial soils in the northern and southern portions of the Site are impacted with TPH at concentrations above the residential EPA RSL but below the industrial EPA RSL. The extent of soil contamination appears to be localized around a pile of 55-gallon drums in the northern portion of the Site and near a 55-gallon drum located within a collapsed building on the southern portion of the Site.

5.6. Sensitive Receptor Evaluation

Contamination from Site sources has been evaluated for its potential to adversely affect sensitive receptors. Table 9 presents the potentially affected media, potential pathways, and potential receptors.

Table 9: Sensitive Receptors Evaluation

Affected Media	Potential Pathways	Sensitive Receptors/Potential Risk
Surface Water	Groundwater discharge	Ompompanoosuc River and Lake Fairlee outlet / Low – No contaminants of concern have been detected in surface water in the Ompompanoosuc River or Lake Fairlee outlet and recent sampling of wells adjacent to these surface waters indicate contaminants of concern are below applicable standards.
Surface Soil	Direct contact to contaminated materials	Site users & Future Users / Low – The landfill has been capped with a multi-layer final cover system. Elevated levels of TPH, above EPA RSL for residential use but below EPA RSL for industrial, have been detected in surficial soils near a pile of 55-gallon drums and a collapsed building at the Site. The current use (historical landfill) and proposed future use (historical landfill with solar array) of the Site indicates the direct contact risk is low. Additionally, numerous restrictions have been put in place at the Site through the 2000 "Grant of Environmental Restrictions, Water and Mineral Rights, Rights of Access and Easement." Those restrictions prohibit residential use.
Subsurface Soil	Direct contact with contaminated soil	Groundwater / Medium – The presence of the landfill cap should significantly reduce leachate migration from contaminated soils to the water table, as suggested by post-closure monitoring data. Although elevated levels of TPH are present in surficial soils in select areas of the Site, the concentrations detected present a low risk for these contaminants to impact groundwater. Additionally, sampling of overburden monitoring wells reported low to non-detectable VOC levels further indicating the TPH in surficial soil presents a low risk. Construction Workers / Low – Soil disturbance activities within the former landfill are prohibited by the "Grant of Environmental Restrictions, Water and Mineral Rights, Right of Access and Easement."

Affected Media	Potential Pathways	Sensitive Receptors/Potential Risk
Groundwater	Infiltration of precipitation through buried waste and impacted soil may leach contaminants to groundwater.	Groundwater Users / Medium – Inactive private drinking water supply wells are present on adjacent properties. Drinking water supply wells have historically shown no contamination for a limited list of analytes with low levels of VOCs detected below the enforcement standards on several occasions. Recent sampling of downgradient drinking water supply wells indicates no contaminants of concern are present above primary standards; however, chloride has recently been detected in a community supply well (PMCWS) that services adjacent properties. The chloride level is above secondary standards indicating a potential adverse effect to odor and appearance. The recent detection is an outlier based on previous results and resampling is recommended to confirm if a sampling or laboratory error occurred. PFAS and 1,4-dioxane have been detected in on-site overburden and bedrock monitoring wells above VGES; however, non-detectable levels have been reported in all off-site wells and downgradient drinking water supply wells. The 2000 "Grant of Environmental Restrictions, Water and Mineral Rights, Rights of Access and Easement" prohibits the installation of portable wells. Potential discharge to Ompompanoosuc River, Lake Fairlee outlet, and adjacent wetlands / Low – See surface water.
Sediment	Discharge of dissolved phase contaminants to basal sediments.	Waters of the State, recreational users, benthic organisms / Unknown

Using the Vermont Agency of Natural Resources (ANR) Natural Resources Atlas, a qualitative receptor analysis was completed to evaluate the occurrence of potential receptors relative to the Site.

5.6.1. Drinking Water Supplies

Twenty private water supply wells were identified within a quarter mile of the Site. There are 39 private wells within 0.5 miles of the Site.

5.6.2. Surface Water and Groundwater Source Protection Areas

No surface water or groundwater source protection areas were identified within 0.25 miles of the Site.

5.6.3. Wetlands

According to the ANR Natural Resources Atlas, there is one mapped Class II Wetland within 0.25 miles of the Site (ANR Atlas Object ID 36801). This wetland is partially on the northernmost edge of the Site and continues to the north of the Site. There are several Vermont Significant Wetlands Inventory (VSWI) mapped wetland within 0.25 miles of the Site that are not classed.

6. Conclusions and Recommendations

Based on the results of the Phase II ESA, Stone makes the following conclusions:

1. TPH contamination is present in surficial soil in the northern and southern portions of the Site above the residential EPA RSL but below the industrial EPA RSL.
    i. The extent of soil contamination appears to be localized around a pile of 55-gallon drums in the northern portion of the Site and near a 55-gallon drum located within a collapsed building on the southern portion of the Site.
    ii. Recent sampling of overburden monitoring wells indicates the risk posed to groundwater by the surficial soil impacts is low. The current and proposed uses of the Site (closed landfill and solar array) indicate the risk posed to sensitive receptors is low. Additionally, land use restrictions are in place preventing residential use of the Site.
2. PFAS and 1,4-dioxane contamination is present in the overburden and bedrock aquifers at the Site above VGES.
    i. Elevated levels of PFAS and/or 1,4-dioxane are present in post-closure monitoring wells (BR-3 and MW-101D) located west and downgradient of the landfill disposal area. Non-detectable levels of these contaminants were reported in downgradient off-Site wells (BR-4 and Former Supply Well) indicating the extent and magnitude of groundwater impacts has been adequately defined.
3. Chloride was detected in an active public community water supply well above the SMCL indicating the odor and appearance of the water may be adversely affected.
    i. The PMCWS well is located southeast of the landfill in an apparent upgradient location and is routinely sampled for chloride as part of the landfill's post-closure monitoring program. The concentration detected in November 2022 is the highest reported to date and is considered an outlier based on previous sampling results.
4. Hazardous building materials were not identified during an assessment of the collapsed building located at the Site.
    i. Construction and demolition waste can be disposed of at a non-hazardous waste receiving facility.

Based on these conclusions and data collected, Stone makes the following recommendations:

- The pile of drums, metal and other materials identified in the northern portion of the Site should be assessed and disposed of at an approved facility in accordance with state and local requirements.
- Post-closure monitoring of the well network should continue in accordance with the landfill post-closure plan; however, PFAS and 1,4-dioxane should be added to the monitoring plan.
- The PMCWS well should be resampled to verify the chloride concentration detected and rule out sample collection and/or laboratory errors. Stone has conveyed the results to both the VT DEC and the Post Mills Water Association (PMWA). The PMWA has indicated they will be resampling the PMCWS well imminently.

- Construction and demolition waste generated during removal of the collapsed building can be disposed of at a non-hazardous waste receiving facility. All drums and other containers located near the collapsed building should be assessed and disposed of at an approved facility in accordance state and local requirements.
- A Certificate of Completion (COC) should be issued for the Site as all RECs have been adequately investigated and delineated and no further assessment is deemed necessary.

7. References

Caswell, Eichler and Hill, Inc. (1995). Hydrogeologic Summary of the Upper Valley Regional Landfill in Post Mills, Vermont (Town of Thetford). Prepared for Manchester Law Offices, Burlington, Vermont and Lamoureaux, Stone & O'Leary Consulting Engineers, Inc., Essex Junction, Vermont.

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Stone, (July 16, 2021). File Review and Data Gap Analysis – Former Upper Valley Regional Landfill Corporation Property, 7412 VT Route 113, Thetford, Vermont.

Upper Valley Regional Landfill Corporation (April 2000). Grant of Environmental Restrictions, Water and Mineral Rights, Right of Access and Easement.

Vermont Attorney General's Office (August 2000). Settlement Agreement between Frank L. Barker, Jr., Barker-Sargent Corporation, Upper Valley Landfill Corporation, Braley Plaintiffs, and the State of Vermont.

Vermont Agency of Natural Resources (2020). Natural Resources Atlas. Retrieved from http://anrmaps.vermont.gov/websites/anra5/ (November 11, 2020).

Vermont Solid Waste Management Program (2002). Upper Valley Regional Landfill Post-Closure Plan.

Appendix A: Figures

LEGEND

Site Boundary

N

0 400 800

Feet

Figure 1: Location Map

7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL

Source: Esri World Imagery, VCGI
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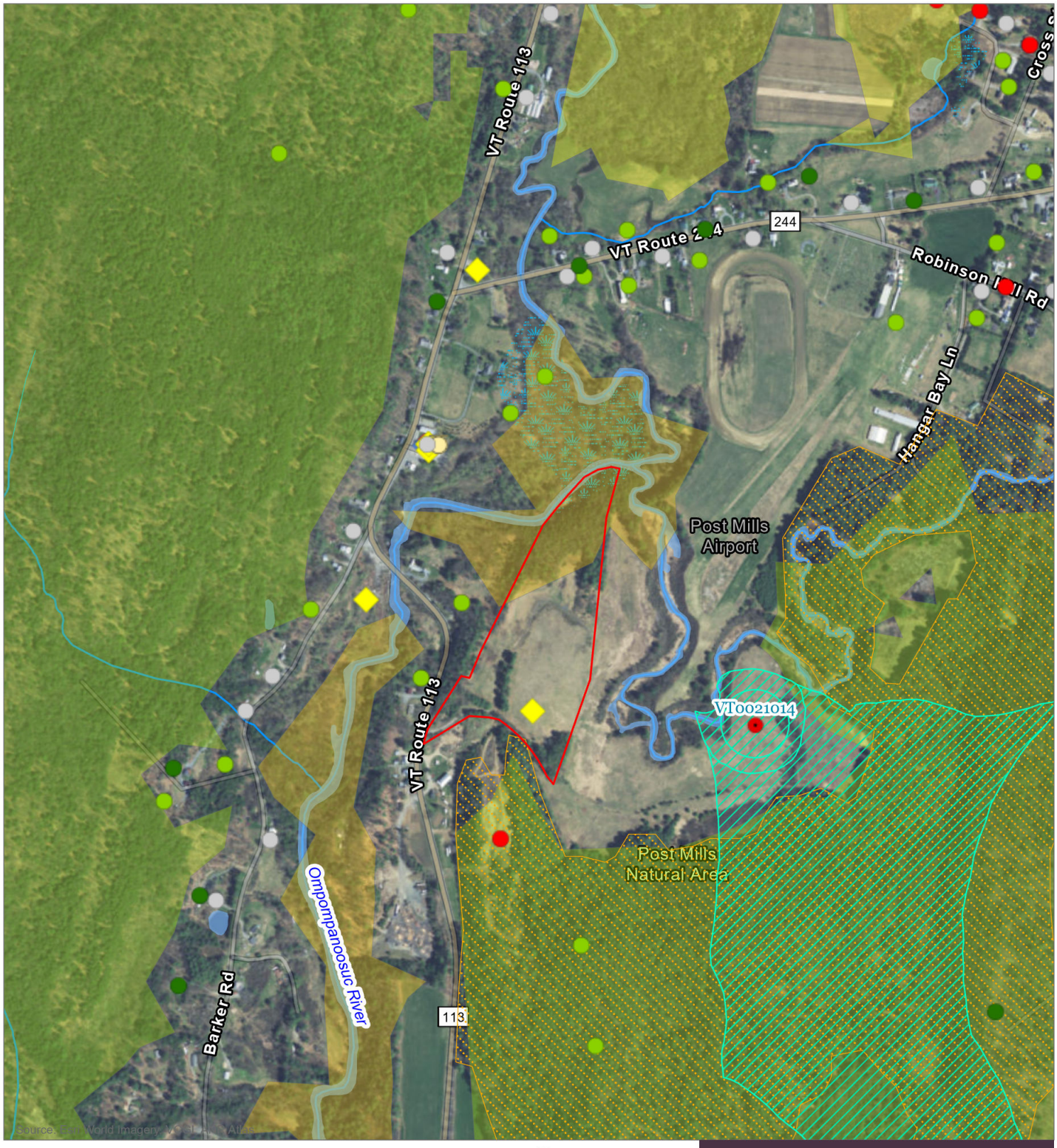


LEGEND

- Parcel Boundary
- Site Boundary
- Ground Water Source Protection Area
- Waterbody
- VT Significant Wetlands Inventory
- Deer Wintering Areas

Habitat Blocks and Wildlife Corridors

- 7
- 5
- 4

Streams

- Intermittent
- Perennial

- Hazardous Waste Generators
- Hazardous Waste Sites
- Underground Storage Tank (working)

Private Wells

- GPS Location
- screen digitized
- E911 Address
- Unknown

Public Water Sources

- Inactive
- Site Boundary

N

0 250 500

Feet

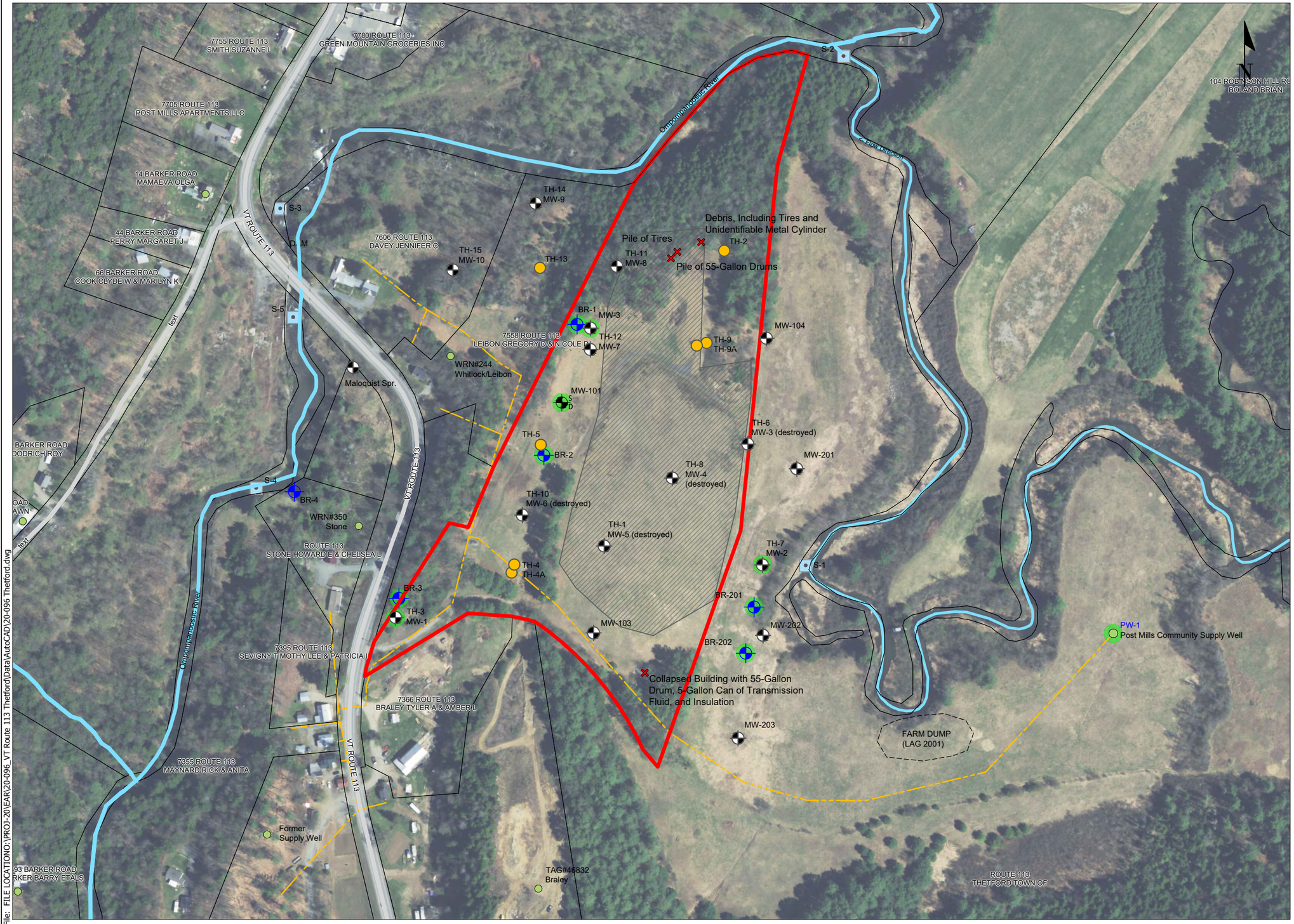
Figure 2: Vicinity Map

7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL

Path: O:\PROJ-20\EAR\20-096_VT Route 113 Thetford\GIS\20-096 7412 VT Route 113\20-096 7412 VT Route 113.aprx Saved: 8/23/2021 by lrajnak



LEGEND

- Bedrock Monitoring Well
- Monitoring Well (Shallow/Deep)
- Overburden Well/Spring
- Post-Closure Monitoring Well Network
- Drinking Water Supply Well
- Staff Gauge & Surface Water
- Soil Boring
- Phase I Site Walk Findings
- Parcel Boundary
- Site Boundary
- Extent of Former UVR Landfill
- Stream
- Water System Distribution Lines

Sources:
VCGI - Aerial Imagery, Parcel Boundary, Public Water Supply, Private Wells
Phase I Environmental Site Assessment and Limited Subsurface Evaluation Report, Figure 2, Lincoln Applied Geology (LAG), Inc, December 13, 2001.
Hydrogeologic Summary of the Upper Valley Regional Landfill in Post Mills, Vermont, Figure 2, Caswell, Eichler and Hill, Inc. November 30, 1995.
Barker-Sargent Landfill Post Mills, Vermont, Landfill Layout & Sections, Sheet 1 of 3, Marshfield Engineering Services, February 9, 1981.
Post Mils Water Association Proposed Water System Improvements. Wright Engineering. Exhibit B. 2001

File: FILE LOCATION:\PROJ-20\EAR\20-096_VT Route 113 Thetford\Data\AutoCAD\20-096 Thetford.dwg

DRAWING CREDITS
Drawn On: 07/13/2021
Drawn By: LBR
Checked On: 07/14/2021
Checked By: SYR
Project No.: 20-096

REVISIONS

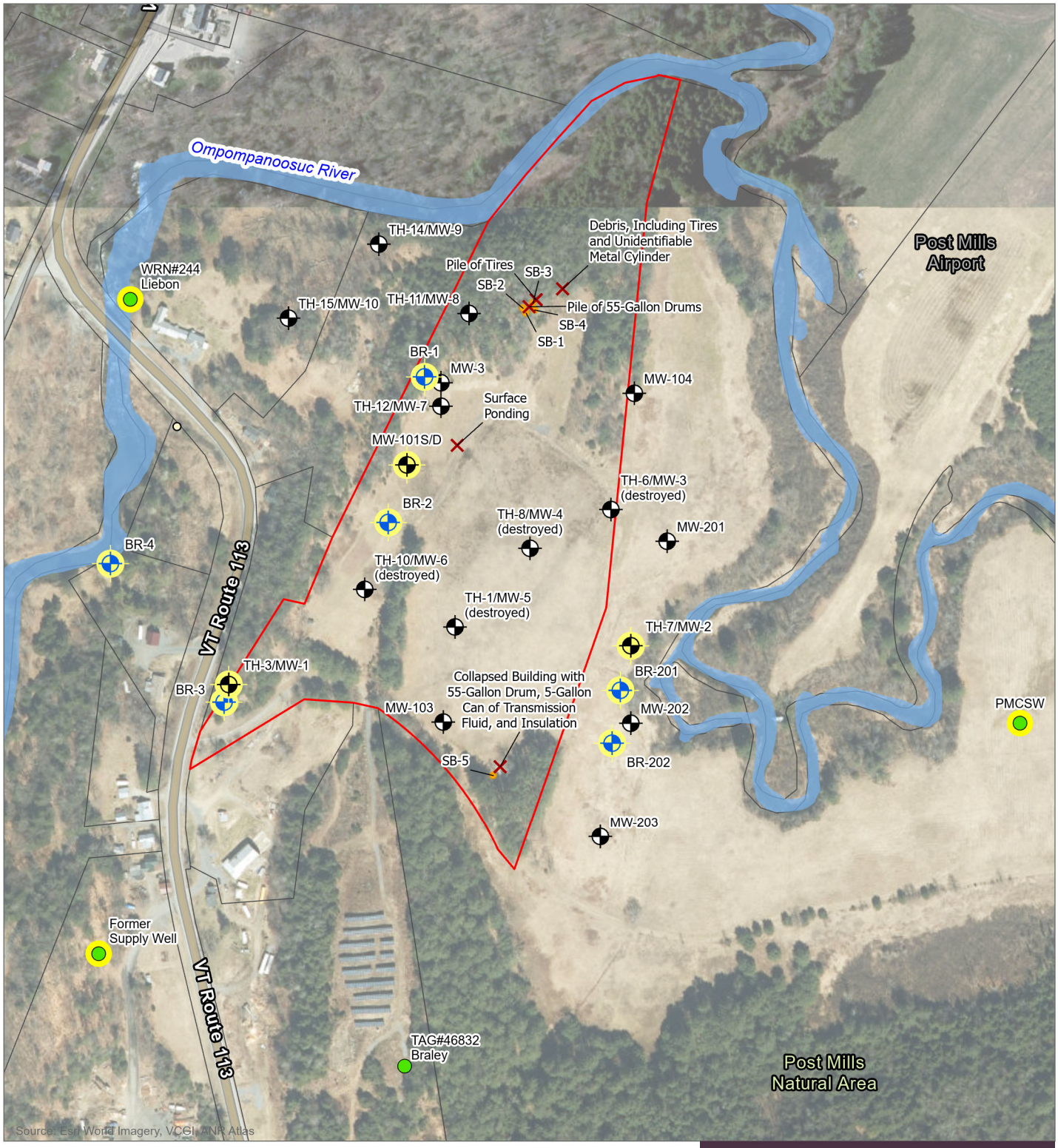
#	Date	Drwn	Chk'd	App'd	Description

DRAWING SCALE
0 250 500 Feet

STONE ENVIRONMENTAL
535 Stone Cutters Way / Montpelier / VT / 05602 / USA
802.229.4541 / info@stone-env.com / www.stone-env.com

Historical Investigation Locations
Upper Valley Regional Landfill Corporation
7412 VT Route 113
Thetford Vermont

FIGURE NO. 3



LEGEND

- Parcel Boundary
- Site Boundary
- Bedrock Monitoring Well; Post Closure Well Network - Sampled
- Overburden Monitoring Well; Post Closure Well Network - Sampled
- Overburden Monitoring Well - Not Sampled
- Drinking Water Supply Well - Sampled
- Drinking Water Supply Well - Not Sampled
- Soil Boring
- Phase I ESA Findings

N

0 100 200

Feet

Figure 4: Site Map - Phase II ESA Sample Locations

7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL

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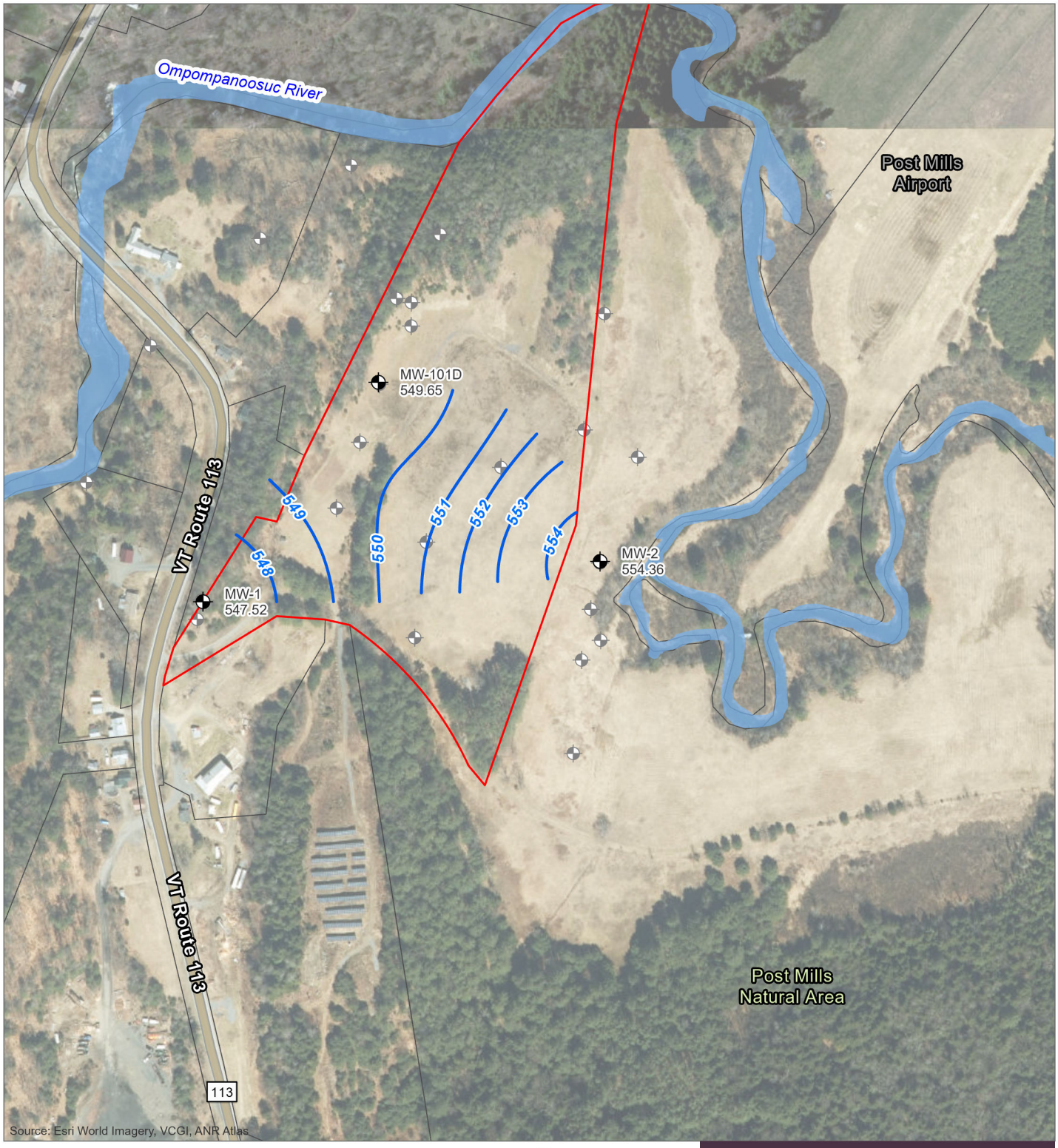


LEGEND

- Parcel Boundary
- Site Boundary
- Overburden Well
- Groundwater Contour (1')

N

0 100 200

Feet

Notes:
Groundwater elevations in ft above mean sea level
Relative casing elevations were obtained from a 1995 report titled "Hydrogeologic Summary of the Upper Valley Regional Landfill in Post Mills, Vermont (Town of Thetford)" prepared by Caswell, Eicher and Hill, Inc.

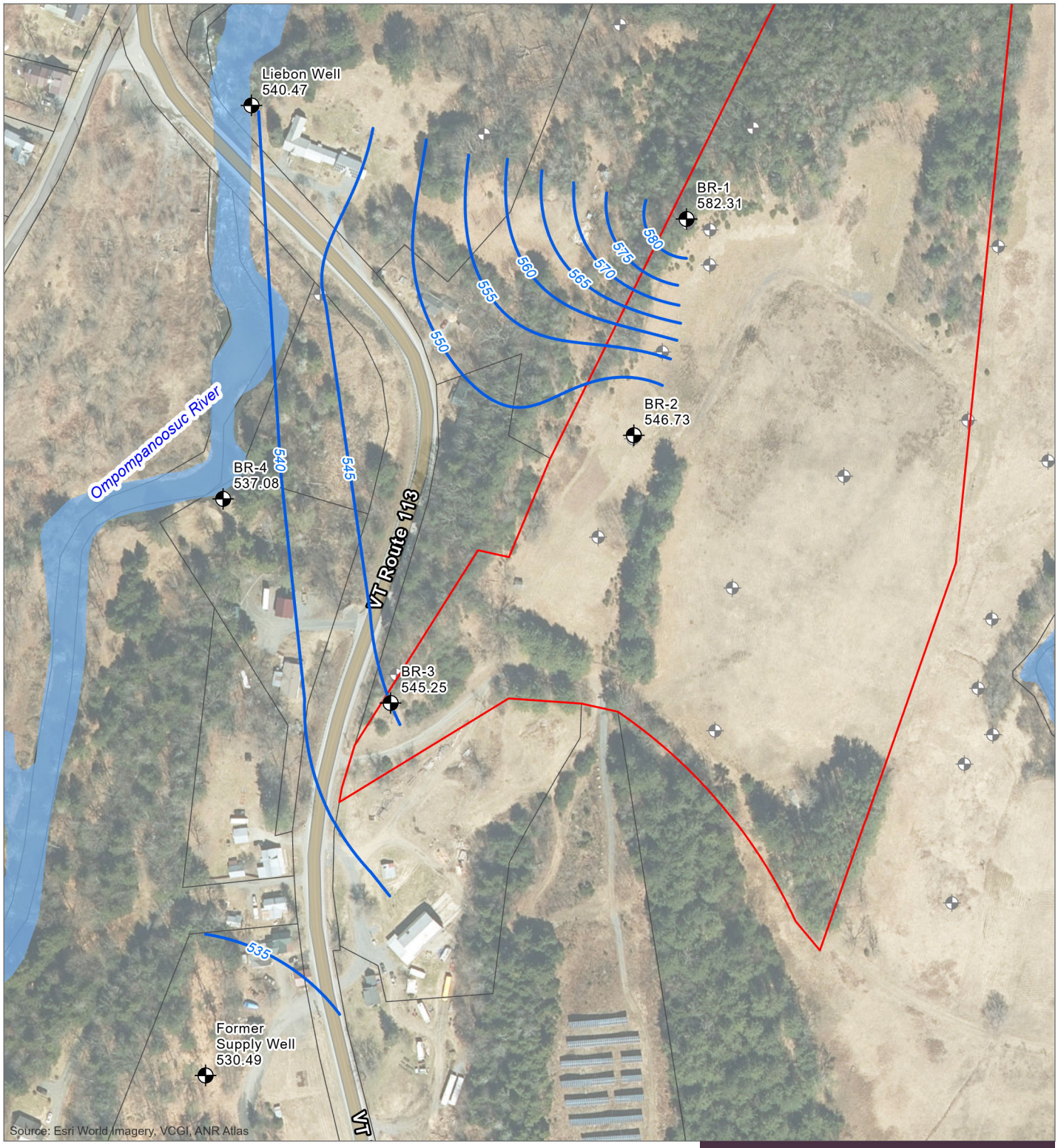
Path: O:\PROJ-20\EAR\20-096_VT Route 113 Thetford\GIS\20-096 7412 VT Route 113\20-096 7412 VT Route 113.aprx Saved: 8/2/2023 by jwright

Figure 5: Overburden Potentiometric Surface Map - November 2022

7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL



LEGEND

- Parcel Boundary
- Site Boundary
- Bedrock Well
- Groundwater Contour (5')

N

0 60 120

Feet

Notes:
Groundwater elevations in ft above mean sea level
Relative casing elevations were obtained from a 1995 report titled "Hydrogeologic Summary of the Upper Valley Regional Landfill in Post Mills, Vermont (Town of Thetford)" prepared by Caswell, Eicher and Hill, Inc.

Path: O:\PROJ-20\EAR\20-096_VT Route 113 Thetford\GIS\20-096 7412 VT Route 113\20-096 7412 VT Route 113.aprx Saved: 8/2/2023 by jwright

Figure 6: Bedrock Potentiometric Surface Map - April 2023

7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL

LEGEND

- Parcel Boundary
- Site Boundary
- Waterbody
- Soil Boring

Notes:
Units in mg/kg
Bold indicates a detection
Red and Bold indicates an exceedance of the Residential EPA Regional Screening Level (RSL)

Residential EPA RSL: 96 mg/kg
Industrial EPA RSL: 440 mg/kg

N

0 40 80

Feet

Figure 7 - TPH Concentrations in Soil

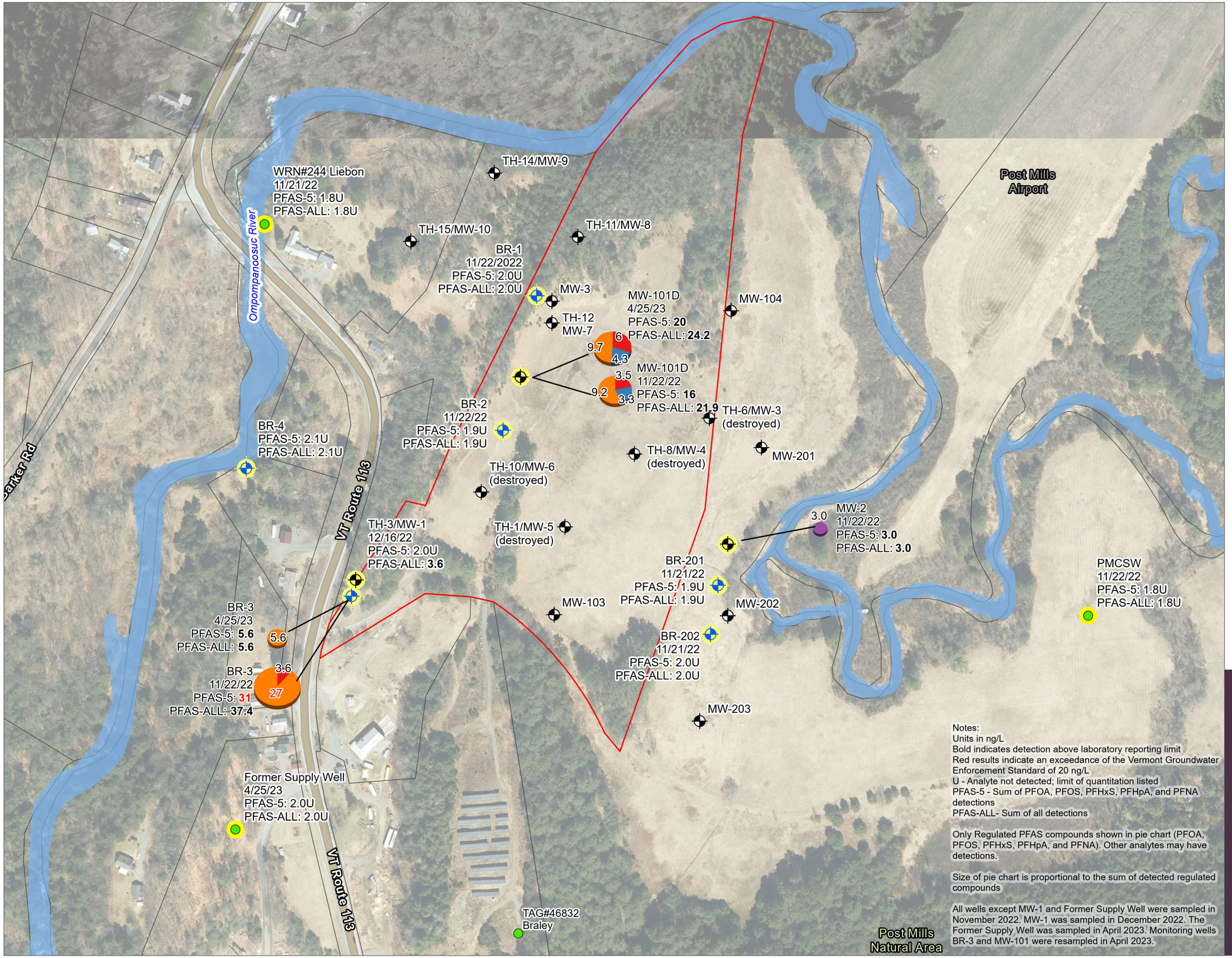
7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL

Source: Esri World Topography

Path: O:\PROJ-20\EAR\20-096_VT Route 113 Thetford\GIS\20-096 7412 VT Route 113\20-096 7412 VT Route 113.aprx Figure 7 - TPH Results SoilExported: 8/7/2023 3:53 PM by jwright



N

0 125 250

Feet

LEGEND

- Site Boundary
- Waterbody
- Parcel Boundary
- Bedrock Monitoring Well; Post Closure Well Network - Sampled
- Overburden Monitoring Well; Post Closure Well Network - Sampled
- Overburden Monitoring Well - Not Sampled
- Drinking Water Supply Well - Sampled
- Drinking Water Supply Well - Not Sampled

PFAS Concentrations

- PFHpA
- PFHxS
- PFNA
- PFOS
- PFOA

Total

62
26
5.6

Source: Esri World Imagery, VCGI, ANR Atlas

Path: O:\PROJ-20\EAR\20-096_VT Route 113 Thetford\GIS\20-096 7412 VT Route 113\20-096 7412 VT Route 113.aprx Figure 8 - PFAS Results Exported: 8/7/2023 3:53 PM by jwright

Notes:
Units in ng/L
Bold indicates detection above laboratory reporting limit
Red results indicate an exceedance of the Vermont Groundwater Enforcement Standard of 20 ng/L
U - Analyte not detected; limit of quantitation listed
PFAS-5 - Sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA detections
PFAS-ALL- Sum of all detections

Only Regulated PFAS compounds shown in pie chart (PFOA, PFOS, PFHxS, PFHpA, and PFNA). Other analytes may have detections.

Size of pie chart is proportional to the sum of detected regulated compounds

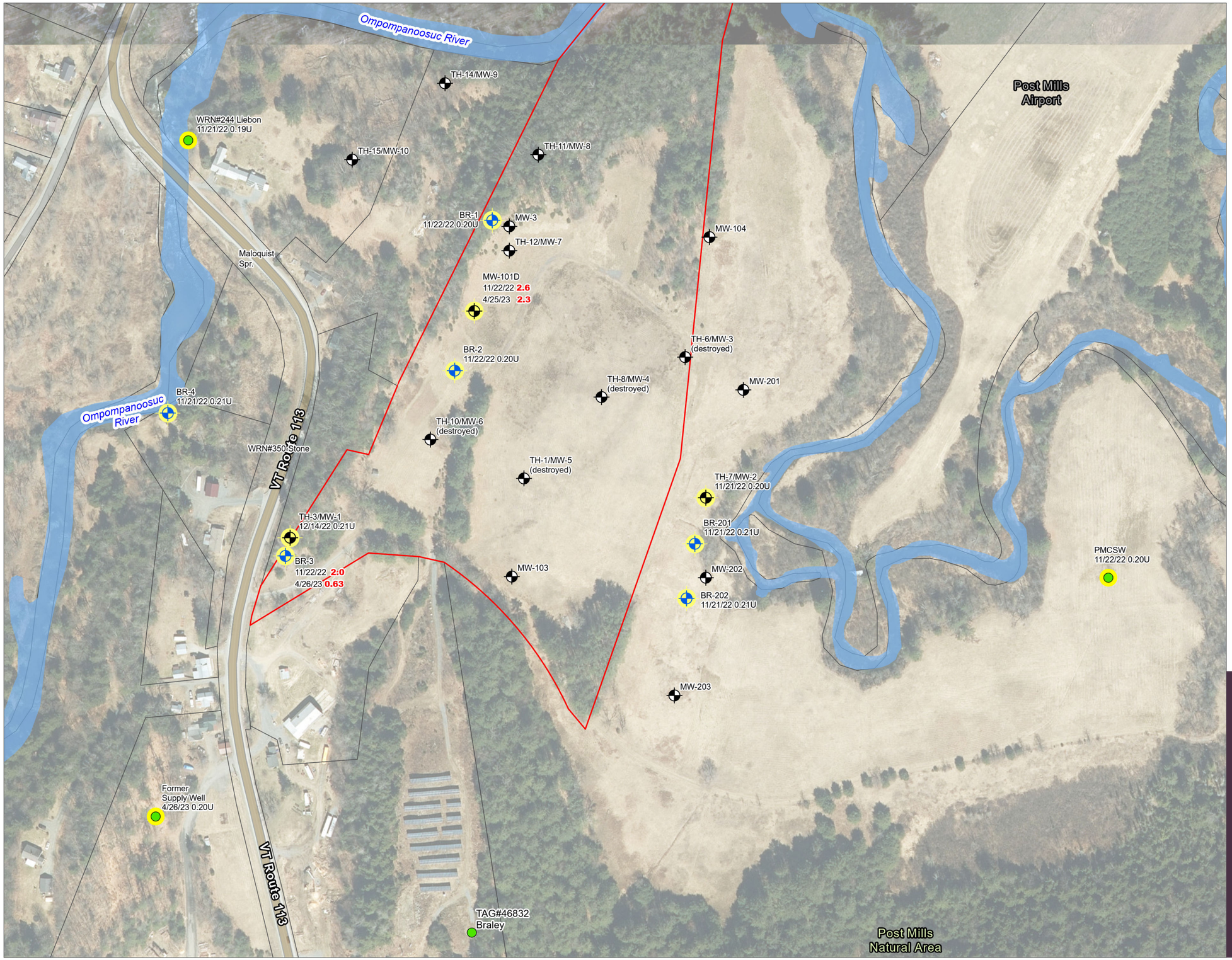
All wells except MW-1 and Former Supply Well were sampled in November 2022. MW-1 was sampled in December 2022. The Former Supply Well was sampled in April 2023. Monitoring wells BR-3 and MW-101 were resampled in April 2023.

Figure 8 - PFAS Concentrations in Groundwater

7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL



N

0 100 200

Feet

LEGEND

- Site Boundary
- Parcel Boundary
- Waterbody
- Bedrock Monitoring Well; Post Closure Well Network - Sampled
- Overburden Monitoring Well; Post Closure Well Network - Sampled
- Overburden Monitoring Well - Not Sampled
- Drinking Water Supply Well - Sampled
- Drinking Water Supply Well - Not Sampled

Notes:
Units in ng/L
Red results indicate an exceedance of the Vermont Groundwater Enforcement Standard of 0.30 ng/L
U - Analyte not detected; limit of quantitation listed

Source: Esri World Imagery, VCGI, ANR Atlas

Path: O:\PROJ-20\EAR\20-096_VT Route 113 Thetford\GIS\20-096 7412 VT Route 113\20-096 7412 VT Route 113.aprx Figure 9 - 1,4-Dioxane Exported: 8/7/2023 3:54 PM by jwright

Figure 9 - 1,4-Dioxane Concentrations in Groundwater

7412 VT Route 113
Thetford, VT

Upper Valley Regional Landfill Corporation

STONE ENVIRONMENTAL

Appendix B: Field Notes

Observation and Remarks

Site Information

Project Name	Thetford Landfill
Project Number	20-096
Project Manager	Rebecca Treat
Location	Thetford VT
Date	9/14/2022

E1

Personnel On Site

Stone Personnel On Site	Laura Rajnak, Jodie Wright
Time On Site	08:45 (-4 GMT)
Time Off Site	15:15 (-4 GMT)

Owner / Sub-Contractor / Visitor On Site

Name/Company	KD Associates/ John Madigan
Time In	09:00 (-4 GMT)
Time Out	09:10 (-4 GMT)
Notes	On site prior to Stones arrival
Name/Company	Wragg Brothers / John
Time In	08:45 (-4 GMT)
Notes	Met Stone at Thetford elementary school

Observation Entry

Weather	60s mostly cloudy
Objectives	1. KD Associates building material assessment 2. Wragg Brothers pump assessment 3. Stone Env soil assessment w manual geoprobe

Notes & Photo(s)

Time of Entry	08:56 (-4 GMT)
Notes	At George Braylee well head. Property owner met us at the landfill to show us to well. 600' deep, no pump. Static water level 234'. 7' we'll casing.

E1 – Added date to form (RIT 7/18/2023)

Observation and Remarks

Photo	  
Notes & Photo(s)	
Time of Entry	**08:59 (-4 GMT)**
Notes	**Only option: 3/4" 10.- gallon/minute two wire to about 400'. Issue with getting trucks up here to do it. 9 ton truck 11' tall. Possible but expensive.**
Photo	
Notes & Photo(s)	
Time of Entry	**09:16 (-4 GMT)**
Notes	**KD Associates done with assessment upon arrival. He did not see any ACM**
Photo	
Notes & Photo(s)	
Time of Entry	**09:26 (-4 GMT)**
Notes	**At Nicole Liebens house. Pump power off but has power.** **John doubts the pump would run, showing full ground on both legs. It might turn on but not for very long.**

Observation and Remarks

	80’ deep through sand.
Photo	 
Notes & Photo(s)	
Time of Entry	**09:38 (-4 GMT)**
Notes	**Nicole stated we can come back at any time if we don’t need inside access.**
Photo	
Notes & Photo(s)	
Time of Entry	**09:45 (-4 GMT)**
Notes	**At Stone residence. Homeowner does not know any information about the well.** **No power to well. No well tag. 1/2 hp pump. Pump should run. ~8’ static water level. Pump can only run off a generator. No power to house.**

Observation and Remarks

Photo	 
Notes & Photo(s)	
Time of Entry	**10:15 (-4 GMT)**
Notes	**Located pile of drums and tires. Was able to follow previous tire marks and gravel path near the sampling location.**
Photo	
Notes & Photo(s)	
Time of Entry	**10:55 (-4 GMT)**
Notes	**SB-1 0-2' background PID = 1.0**
Photo	

Signature

Signature	

STONE ENVIRONMENTAL INC

GENERIC SAMPLING FORM

Project Title	Thetford Landfill
Project Location	Thetford VT
Project Manager	Rebecca Treat
SEI Study Number	20-096
Sampling Personnel:	Laura Rajnak, Jodie Wright
Notes:	See Collector for all sample locations. Multiple borings driven to get adequate sample volume.
70s partly sunny	Time on Site: 08:45
	Time off Site: 15:15

9/14/2022 E1

Sample ID	Time (military)	Sample Depth (Ft)	Description (Media)	Analysis	Field Dup.	Archive	Notes:
SB-1-0.5	11:15	1	SL	VOCs 8260, SVOCs 8270, PP Metals 6010, Other			Other: TPH At southern base of drum pile.
SB-2-0.5	11:47	1	SL	VOCs 8260, SVOCs 8270, PP Metals 6010, Other			
SB-3-0.5	12:45	1	SL	VOCs 8260, SVOCs 8270, PP Metals 6010, Other	✓		At the base of tire pile to the N, three or four tires located further north of sample location.
SB-4-0.5	13:30	1	SL	VOCs 8260, SVOCs 8270, PP Metals 6010, Other			Between drum and tire pile to the east.
SB-5-0.5	15:00	1	SL	VOCs 8260, SVOCs 8270, PP Metals 6010, Other			Cleared vegetation to get closer to drum. Could not get closer than 5' to drums due to collapsed building and many rusty nails sticking up.
SB-3-0.5-FD	12:45	1	SL	VOCs 8260, SVOCs 8270, PP Metals 6010, Other			At the base of tire pile to the N, three or four tires located further north of sample location.
TRIP BLANK	12:00		SL	VOCs 8260			

Sampling Personnel Signature _____ Date 09-14-2022

E1 - Added date to form (RIT 7/18/2023)

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments: 23.57 wl
Wragg Brothers on-site to assist activating well pump and attaching to pitless
Well pump is dead. Wragg removed pump and placed in barn. Tubing placed behind barn.

WELL ID	Leibon Well		Equipment ID / SN
Sample Date	11-21-2022	Pump:	NA
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	Geotech meter
Sampling Method	Other Geosub E1	Water Quality Sonde:	3470 ysi
Sampling Personnel	RebeccaTreat	Turbidity Meter:	7309 hach
Weather	Cloudy, 30s	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 10:09 | Depth of Pump/Intake: 140.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)	Depth to Water (btoc)	Height of Water Column		One Well Volume
260.00 feet	- 23.57 feet	= 236.43 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 0 liters

Time purging began (military):	15:13	3 X One Well Volume	0	liters
Time purging ended (military):	16:04	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
26.1		15:15	2,000	8.2	221	8.73	1.89	287	34.5
27.5		15:20	2,000	8.2	50	8.75	0.40	286	34.5
27.6		15:27	2,000	8.2	-30	8.76	0.36	284	35.6
30.1		15:32	2,000	8.0	-47	8.79	0.25	285	36.0
		15:38	2,000	8.0	-37	8.79	0.23	284	52.2
31.5		15:42	2,000	8.0	-76	8.79	0.25	284	34.4
		15:48	2,000	8.3	-106	8.78	0.20	285	30.9
		15:55	2,000	8.2	-123	8.79	0.17	283	32.1
		16:00	2,000	8.2	-128	8.80	0.15	282	32.1
		16:04	2,000	8.2	-129	8.70	0.14	284	32.0

Total Vol. Removed: 10.0 Liters (V) ✓ Meters Calibrated (V) ___ Min. 3 Well Vol. Purged (V) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
Leibon Well		16:05	RebeccaTreat	Other		PFAS 537.1, VOC 8260, SVOC 8270, 1,4-Dioxane SIM, PCBs 8082, PP Metals 6010, Dioxins/Furans 8290, Other, COD	

Sampling Personnel Signature _____ Date 11-21-2022

E1 - added pump used to sample well (RIT 7/20/23)

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford	Comments:	WL 8.25 Wragg brothers activated well pump for sampling
SEI Project Number:	20-096		
Client:			
Project Manager:	Rebecca Treat		

WELL ID	~~Stone Well~~ BR-4 E1		Equipment ID / SN
Sample Date	11-21-2022	Pump:	NA
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	Geotech meter
Sampling Method	Other	Water Quality Sonde:	3470 ysi
Sampling Personnel	RebeccaTreat	Turbidity Meter:	7309 hach
Weather	Cloudy, 30s	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 12:00 | Depth of Pump/Intake: _____ feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)	Depth to Water (btoc)	Height of Water Column		One Well Volume
405.00 feet	- 8.25 feet	= 396.75 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 0 liters

Time purging began (military):	12:30	3 X One Well Volume	0	liters
Time purging ended (military):	13:02	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
	5	12:32	2,000	9.5	68	8.03	0.68	206	509.0
	15	12:37	2,000	10.0	-47	8.12	0.37	205	59.6
	25	12:42	2,000	10.0	-64	8.13	0.25	203	19.6
	35	12:47	2,000	10.0	-88	8.15	0.19	201	8.5
	45	12:52	2,000	10.0	-90	8.18	0.16	298	4.8
	55	12:57	2,000	10.0	-89	8.18	0.13	293	4.2
	65	13:02	2,000	10.0	-89	8.17	0.17	298	3.3

Total Vol. Removed: 10.0 Liters (√) ✓ Meters Calibrated (√) ✓ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
Stone Well		13:05	RebeccaTreat	Other	Other	PFAS 537.1, VOC 8260, SVOC 8270, 1,4-Dioxane SIM, PCBs 8082, PP Metals 6010, Dioxins/Furans 8290, Other, COD	

Sampling Personnel Signature _____ Date 11-21-2022

E1 - changed well identification (RIT 7/18/23)

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Geosub set at 60

Project Name:	Thetford Landfill	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	BR-201		Equipment ID / SN
Sample Date	11-21-2022	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	7515
Sampling Method	Other	Water Quality Sonde:	3666
Sampling Personnel	Laura Rajnak	Turbidity Meter:	5619
Weather	20s sunny	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:40 | Depth of Pump/Intake: 60.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
105.00 feet	-	15.18 feet	=	89.82 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 55.42 liters

Time purging began (military):	11:50	3 X One Well Volume	166.26	liters
Time purging ended (military):	12:50	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
16.99	9,000	11:00	900	7.7	-94	7.54	0.25	174	6.7
17.88	18,000	12:10	900	7.2	-149	7.74	0.17	174	2.4
18.42	22,500	12:15	900	7.8	-162	7.79	0.14	174	2.4
19.33	27,000	12:25	900	7.5	-179	7.93	0.14	174	2.2
19.62	27,000	12:30	900	7.8	-180	7.94	0.14	174	2.0
20.39	31,500	12:35	900	7.8	-185	7.94	0.12	174	2.5

Total Vol. Removed: 31.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-201		12:50	Laura Rajnak	1 x 125 mL Plastic, 2 x 250 mL Plastic 1, 2 x 250 mL Plastic 2, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, 2 x 1L Amber 1, 2 x 40mL VOA, 1 x 250 mL Plastic		PFAS 537.1, Arsenic 6010, VOC 8260, PCBs 8082, SVOC 8270, PP Metals 6010, Dioxins/Furans 8290, COD, Other	

Sampling Personnel Signature _____ Date 11-21-2022

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Geosub pump used for sampling.

Project Name:	Thetford Landfill	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	BR-202		Equipment ID / SN
Sample Date	11-21-2022	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	7515
Sampling Method	Other	Water Quality Sonde:	3666
Sampling Personnel	Laura Rajnak	Turbidity Meter:	5619
Weather	30 cloudy	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:35 | Depth of Pump/Intake: 70.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
150.00	feet	3.16	feet	= 146.84 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 90.60 liters

Time purging began (military):	13:32	3 X One Well Volume	271.80	liters
Time purging ended (military):	14:45	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
4.16	9,000	13:42	900	7.6	-8	8.18	0.26	149	71.2
4.59	18,000	13:52	900	7.6	-91	8.19	0.26	148	96.2
4.71	27,000	14:02	900	7.5	-130	8.19	0.26	148	86.3
4.75	36,000	14:12	900	7.8	-137	8.15	0.23	147	71.6
5.08	45,000	14:22	900	7.7	-139	8.20	0.25	147	57.4
5.14	49,500	14:27	900	7.7	-139	8.20	0.21	146	50.9
4.19	54,000	14:32	900	7.7	-138	8.19	0.23	146	46.6
5.26	58,500	14:37	900	7.8	-137	8.17	0.24	146	46.4

Total Vol. Removed: 58.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-202		14:45	Laura Rajnak	1 x 125 mL Plastic, 2 x 250 mL Plastic 1, 2 x 250 mL Plastic 2, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, 2 x 1L Amber 1, 2 x 40mL VOA, 1 x 250 mL Plastic		PFAS 537.1, Arsenic 6010, VOC 8260, PCBs 8082, SVOC 8270, PP Metals 6010, Dioxins/Furans 8290, COD, Other	

Sampling Personnel Signature _____ Date 11-21-2022

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

~~Geosub pump used for sampling~~[1]

Project Name:	Thetford Landfill	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	MW-2		**Equipment ID / SN**
Sample Date	11-21-2022	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	7515
Sampling Method	~~Other~~ Peri Pump[1]	Water Quality Sonde:	3666
Sampling Personnel	Laura Rajnak	Turbidity Meter:	5619
Weather	25 cloudy	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:30 | Depth of Pump/Intake: 20.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)	Height of Water Column		One Well Volume
22.35 feet	-	14.47 feet	= 7.88 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 2.73 liters

Time purging began (military):	15:03	3 X One Well Volume	8.20	liters
Time purging ended (military):	16:50	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
15.94	2,000	15:13	200	8.2	186	6.79	5.72	484	16.8
16.08	4,000	15:23	200	8.2	200	6.76	5.31	484	1.3
16.12	6,000	15:33	200	8.2	217	6.74	5.57	490	0.3
16.12	8,000	15:43	200	8.2	228	6.73	5.35	488	0.7
16.14	10,000	15:53	200	8.2	244	6.72	5.34	487	0.5
16.14	11,000	15:58	200	8.3	245	6.72	5.44	487	0.5
16.14	12,000	16:03	200	8.2	249	6.72	5.45	490	0.1

Total Vol. Removed: 12.0 Liters (√) ✓ Meters Calibrated (√) ✓ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
MW-2		16:50	Laura Rajnak	1 x 125 mL Plastic, 2 x 250 mL Plastic 1, 2 x 250 mL Plastic 2, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, 2 x 1L Amber 1, 2 x 40mL VOA, 1 x 250 mL Plastic		PFAS 537.1, Arsenic 6010, VOC 8260, PCBs 8082, SVOC 8270, PP Metals 6010, Dioxins/Furans 8290, COD, Other	

Sampling Personnel Signature _____ Date 11-21-2022

1. E. LE. 5/5/2023 Laura Rajnak

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	BR-1		Equipment ID / SN
Sample Date	11-22-2022	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	7515
Sampling Method	Other GeoSub Pump [1]	Water Quality Sonde:	3666
Sampling Personnel	Laura Rajnak	Turbidity Meter:	5619
Weather	30 sunny	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 08:52 | Depth of Pump/Intake: 165.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
290.00	feet	41.64	feet	= 248.36	feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well) = 153.24 liters

Time purging began (military):	09:20	3 X One Well Volume	459.71	liters
Time purging ended (military):	10:25	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
43.18	16,000	09:40	800	9.7	-146	7.87	0.18	190	1.8
44.85	24,000	09:50	800	9.5	-165	7.96	0.15	190	2.8
45.6	24,000	10:00	800	9.5	-174	8.00	0.11	189	1.6
46.08	32,000	10:10	800	9.2	-177	8.01	0.14	190	2.0
45.21	36,000	10:15	800	9.3	-178	8.01	0.16	190	1.1

Total Vol. Removed: 36,000.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-1		10:25	Laura Rajnak	1 x 125 mL Plastic, 2 x 250 mL Plastic 1, 2 x 250 mL Plastic 2, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, 2 x 1L Amber 1, 2 x 40mL VOA, 1 x 250 mL Plastic		PFAS 537.1, Arsenic 6010, VOC 8260, PCBs 8082, SVOC 8270, PP Metals 6010, Dioxins/Furans 8290, COD, Other	

Sampling Personnel Signature _____ Date 11-22-2022

1. LE. 5/5/2023 Laura Rajnak

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments: Pump and wiring in well. Could not get pump deeper than 100 feet due to obstruction. Yellowish water from well. See O&R for photo.

Geosub pump used for sampling.

WELL ID	BR-3		Equipment ID / SN
Sample Date	11-22-2022	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	7515
Sampling Method	Other	Water Quality Sonde:	3666
Sampling Personnel	Laura Rajnak	Turbidity Meter:	5619
Weather	30 clear	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 14:00 | Depth of Pump/Intake: 100.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
282.00 feet	-	40.38 feet	=	241.62 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 149.08 liters

Time purging began (military):	14:15	3 X One Well Volume	447.24	liters
Time purging ended (military):	15:30	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
42.1	9,000	14:30	600	9.3	-291	7.64	0.10	1,294	6.3
42.56	15,000	14:40	600	9.3	-295	7.64	0.06	1,296	8.2
44.3	21,000	14:50	600	9.4	-314	7.81	0.09	1,294	7.7
44.5	24,000	14:55	600	9.4	-313	7.80	0.06	1,292	7.3
44.8	27,000	14:00	600	9.4	-319	7.98	0.06	1,295	6.6
45.05	30,000	15:05	600	9.4	-322	8.03	0.08	1,291	7.9
46.4	36,000	15:15	600	9.4	-323	8.04	0.06	1,290	7.6

Total Vol. Removed: 36.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-3		15:30	Laura Rajnak	1 x 125 mL Plastic, 2 x 250 mL Plastic 1, 2 x 250 mL Plastic 2, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, 2 x 1L Amber 1, 2 x 40mL VOA, 1 x 250 mL Plastic		PFAS 537.1, Arsenic 6010, VOC 8260, PCBs 8082, SVOC 8270, PP Metals 6010, Dioxins/Furans 8290, COD, Other	

Sampling Personnel Signature _____ Date 11-22-2022

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Geosub pump used for sampling

Project Name:	Thetford Landfill	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	BR-2		Equipment ID / SN
Sample Date	11-22-2022	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	7515
Sampling Method	Other	Water Quality Sonde:	3666
Sampling Personnel	Laura Rajnak	Turbidity Meter:	5619
Weather		Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:52 | Depth of Pump/Intake: 165.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
200.00 feet	-	75.95 feet	=	158.16 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 97.58 liters

Time purging began (military):	11:10	3 X One Well Volume	292.75	liters
Time purging ended (military):	12:20	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
76.99	10,000	11:21	1,000	9.9	184	6.93	0.15	556	0.2
77.13	20,000	11:30	1,000	10.0	172	6.88	0.11	556	0.3
77.18	30,000	11:40	1,000	10.0	166	6.85	0.11	557	0.2
77.2	35,000	11:45	1,000	10.0	165	6.84	0.11	557	0.1
77.2	40,000	11:50	1,000	10.0	163	6.83	0.11	557	0.1

Total Vol. Removed: 40.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-2	✓	12:00	Laura Rajnak	1 x 125 mL Plastic, 2 x 250 mL Plastic 1, 2 x 250 mL Plastic 2, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, 2 x 1L Amber 1, 2 x 40mL VOA, 1 x 250 mL Plastic		PFAS 537.1, Arsenic 6010, VOC 8260, PCBs 8082, SVOC 8270, PP Metals 6010, Dioxins/Furans 8290, COD, Other	

Sampling Personnel Signature _____ Date 11-22-2022

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Geosub Pump used for sampling

Project Name:	Thetford Landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

			Equipment ID / SN
WELL ID	MW-101D		
Sample Date	11-22-2022	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	7515
Sampling Method	Other	Water Quality Sonde:	3666
Sampling Personnel	Laura Rajnak	Turbidity Meter:	5619
Weather	30 sunny	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:55 | Depth of Pump/Intake: 78.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
83.00 feet	-	74.15 feet	=	8.85 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 5.46 liters

Time purging began (military):	12:35	3 X One Well Volume	16.38	liters
Time purging ended (military):	13:40	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
74.15	9,000	12:50	600	11.1	21	6.33	0.99	1,223	3.1
75.14	15,000	13:00	600	11.2	-2	6.33	0.73	1,232	2.2
74.15	21,000	13:10	600	11.3	-17	6.34	0.51	1,235	1.1
74.15	27,000	13:20	600	11.1	-21	6.34	0.44	1,235	1.0
74.15	33,000	13:25	600	11.0	-24	6.34	0.38	1,236	0.8
74.15	39,000	13:30	600	11.3	-25	6.34	0.37	1,235	0.9

Total Vol. Removed: 39.0 Liters (√) ✓ Meters Calibrated (√) ✓ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
MW-101D		13:40	Laura Rajnak	1 x 125 mL Plastic, 2 x 250 mL Plastic 1, 2 x 250 mL Plastic 2, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, 2 x 1L Amber 1, 2 x 40mL VOA, 1 x 250 mL Plastic		PFAS 537.1, Arsenic 6010, VOC 8260, PCBs 8082, SVOC 8270, PP Metals 6010, Dioxins/Furans 8290, COD, Other	

Sampling Personnel Signature _____ Date 11-22-2022

STONE ENVIRONMENTAL INC

SUPPLY WELL SAMPLING FORM

Project Name:	Thetford
SEI Project Number:	20,096
Client:	
Project Manager:	Rebecca Treat

Location ID	Post Mills Community Water Supply Well (PMCWS Well)		
Sample Date	11-22-2022		
Property Contact Name, Address and Phone Number			
Water Supply Type (bedrock, shallow well, spring, etc..)	Bedrock		
Well Location and GPS Coordinates			
Septic Location and GPS Coordinates			
Water Treatment (softener, filter, etc..)	None		
Sample Location (Pressure Tank, Outside Spigot, etc..)	Pump house - well pump spigot		
SOP/SSP #'s Followed	SOPs SEI-5.57.1		SEI Equipment ID
Sampling Method	grab	Turbidimeter	7,309
Sampling Personnel	Rebecca Treat	Water Quality Sonde SN	3,740
Weather	Sunny 30s		

Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (°C)	ORP (mV) (+/- 10 mV)	pH (su) (+/- 0.1 su)	DO (mg/L) (+/- 10%)	Conductivity (µS) (+/- 3%)	Turbidity (NTU)
	14:35		10.20	198.20	6.87	3.92	201.90	0.02

Total Purge Time: _____ Minutes (√) ___Meters Calibrated (√)

Sample ID	Time Collected (Military)	Approx. Vol. (mL)	Sampled By (Initials)	Analysis
PMCWS Well	14:40	Other	Rebecca Treat	VOC 8260,
	14:40	Other	Rebecca	VOC 8260,
	14:40	Other	Rebecca	VOC 8260,
	14:40	Other	Rebecca Treat	VOC 8260,

Comments:

System purged for 10 min

Sample Area Inventory/Use:

Pump house. Sample collected before pressure tanks/filters. No obvious PFAS sources in pump house. Pics taken

Sampling Personnel Signature _____ Date 11-22-2022

Observation and Remarks

Site Information

Project Name	Thetford Landfill
Project Number	20-096
Project Manager	Rebecca Treat
Location	Thetford VT
Date	11-21-2022

Personnel On Site

Stone Personnel On Site	Laura Rajnak, Rebecca Treat
Time On Site	08:20 (-5 GMT)
Time Off Site	17:00 (-5 GMT)

Owner / Sub-Contractor / Visitor On Site

Name/Company	Wragg Bros. Pump Service
Time In	09:40 (-5 GMT)
Time Out	09:42 (-5 GMT)
Notes	

Observation Entry

Weather	Morning 15 overcast
Objectives	Groundwater and drinking water assessment at three residential wells (Liebon, Stone, Braley), post-closure monitoring well network (5 bedrock, 3 overburden wells), Post Mills Community Water Supply Well.

Notes & Photo(s)	
Time	08:51 (-5 GMT)
Notes	Gauged Braley well. Obstruction or filled in well at 167'. WL meter had sediment on it at when pulled up from well. Cannot sample.
Photo(s)	
Notes & Photo(s)	
Time	09:08 (-5 GMT)
Notes	

Observation and Remarks

Photo(s)	 
Notes & Photo(s)	
Time	09:40 (-5 GMT)
Notes	LBR /RIT met with Wragg Bros at Liebon well. LBR off-site to get gas for generators.
Photo(s)	
Notes & Photo(s)	
Time	10:25 (-5 GMT)
Notes	LBR back on site
Photo(s)	
Notes & Photo(s)	
Time	10:45 (-5 GMT)
Notes	Liebon well set. Pump turned on. Well tripped and running at 19 amps. Pump is dead and have to pull the pump.
Photo(s)	
Notes & Photo(s)	
Time	11:35 (-5 GMT)
Notes	LBR back at BR-201
Photo(s)	
Notes & Photo(s)	
Time	15:27 (-5 GMT)
Notes	FRB-112122 collected for PFAS at MW-2 location
Photo(s)	

Signature

Observation and Remarks

Signature	
Date	11-21-2022

Observation and Remarks

Site Information

Project Name	Thetford Landfill
Project Number	20-096
Project Manager	Rebecca Treat
Location	Thetford VT
Date	11-22-2022

Personnel On Site

Stone Personnel On Site	Laura Rajnak, Rebecca Treat
Time On Site	08:30 (-5 GMT)
Time Off Site	16:00 (-5 GMT)

Owner / Sub-Contractor / Visitor On Site

Observation Entry

Weather	20s-30s sunny
Objectives	Complete groundwater sampling of wells

Notes & Photo(s)	
Time	09:30 (-5 GMT)
Notes	RIT off site to pick up generator.
Photo(s)	

Notes & Photo(s)	
Time	09:45 (-5 GMT)
Notes	Issues with Grundfos pump. Would not start and would trip breaker when turned on. Only one groundwater set up going for the day.
Photo(s)	

Notes & Photo(s)	
Time	12:20 (-5 GMT)
Notes	EB-112222 collected for PFAS 537 from decontaminated Geopump. PFAS free water poured over pump housing.
Photo(s)	

Notes & Photo(s)	
Time	14:00 (-5 GMT)
Notes	MW-1 pvc 1.5” diameter. Geopump would not fit down well. No sample collected. MW-1 is the northern most well. Depicted incorrectly on figure.

Observation and Remarks

Photo(s)	 
Notes & Photo(s)	
Time	14:55 (-5 GMT)
Notes	Sampling procedure for 11/21 & 11/22: new HDPE and tubing for each location. Geosub and water level meter decontaminated between locations with scrub and clean water rinse.
Photo(s)	
Notes & Photo(s)	
Time	15:13 (-5 GMT)
Notes	BR-3 water yellowish in color and staining tubing.

Observation and Remarks

Photo(s)	 

Notes & Photo(s)	
Time	17:10 (-5 GMT)
Notes	Samples dropped off at vital solutions in West Leb NH
Photo(s)	

Signature

Signature	
Date	11-22-2022

Stone Environmental, Inc. Field Instrument Calibration Record

Project Name: Thetford Landfill **Date:** 11-21-2022 **Sampler (Sig/Date):**
SEI Project Number: 20-096 **Task:** Groundwater
Project Location: Thetford VT **Checked By/Date:** LBR 11-21-2022
Weather Conditions (AM): 20s dark **Weather Conditions (PM):**

MULTI-PARAMETER WATER QUALITY METER

Meter Type: YSI
Model NO.:
Unit ID NO.: 3666

AM Calibration — **Start Time** 06:21 / **End Time** 06:21

Post Calibration Check — **Start Time** 06:30 / **End Time** 06:53

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4	4.00	±0.1 pH Units			
pH (7)	SU	7	7.01	±0.1 pH Units	7	7.06	±0.3 pH Units
pH (10)	SU	10	10	±0.1 pH Units			
ORP	mV	240	243.8	±10 mV	252	269.0	±10 mV
Specific Conductance	µs/cm	1,214	1,256.0	±0.5% of Standard	1,012	1,022.0	±5% of Standard
Dissolved Oxygen	%	100%	98.2	±2% of Standard	100%	90.0	±0.5 mg/L of sat. val.
Temperature	°C		17.0			8.0	
Baro. Press.	mmHg		756.8			754.7	

TURBIDITY METER

Meter Type: Geotech **Model NO.:** **Unit ID NO.:** 7309

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
	NTU	NTU 20	21.2	±0.3 NTU of stan. Of 1.0 NTU or less. ±5% of standards >5 NTU	NTU 20	20.5	±0.3 NTU of stan. Of 1.0 NTU or less. ±5% of standards >5 NTU
	NTU	NTU 100	102		NTU 100	109	
	NTU	NTU 800	803		NTU 800	808	

PHOTIONIZATION DETECTOR

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	0.0		within 5 ppmv of BG	0.0		within 5 ppmv of BG
Span Gas	ppmv	100		±10% of standard	100		±10% of standard

O_2-LEL 4 GAS METER

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		±10% of standard	50		±10% of standard
O_2	%	20.9		±10% of standard	20.9		±10% of standard
H_2S	ppmv	25		±10% of standard	25		±10% of standard
CO	ppmv	50		±10% of standard	50		±10% of standard

☐ Equipment calibrated within the Acceptance Criteria specified for each parameter listed above.
☐ Equipment **not** calibrated within the Acceptance Criteria specified for each parameter listed above**.

MATERIALS RECORD

Deionized/Distilled Water Source:
Trip Blank Source:
Sample Preservative Source:
Disposable Filter Type:
DO Calibration Fluids Source:
Other:

Calibration Standard Lot #		Exp. Date
pH (4)	2GC933	03/24
pH (7)	2GD853	04/24
pH (10)	1GK654	11/23
ORP	2GD	01/23
Spec. Conductivity	2GC	03/23
Turb. Stan. NTU 20	35D	07/23
Turb. Stan. NTU 100	35D	07/23
Turb. Stan. NTU 800	35D	07/23
PID Scan Gas		
O_2 LEL		
Other		

NOTES:

STONE ENVIRONMENTAL

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Stone Environmental, Inc. Field Instrument Calibration Record

Project Name: Thetford Landfill **Date:** 11-21-2022 **Sampler (Sig/Date):**
SEI Project Number: 20-096 **Task:** Groundwater
Project Location: Thetford VT **Checked By/Date:** LBR 11-21-2022
Weather Conditions (AM): 20s **Weather Conditions (PM):**

MULTI-PARAMETER WATER QUALITY METER

Meter Type: YSI
Model NO.:
Unit ID NO.: 3740

AM Calibration — **Start Time** 06:20 / **End Time** 06:25

Post Calibration Check — **Start Time** 06:45 / **End Time** 07:00

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4	4.04	±0.1 pH Units			
pH (7)	SU	7	7.01	±0.1 pH Units	7	7.04	±0.3 pH Units
pH (10)	SU	10	10	±0.1 pH Units			
ORP	mV	240	233.3	±10 mV	250	228.0	±10 mV
Specific Conductance	µs/cm	1,213	1,278.0	±0.5% of Standard	1,013	1,033.0	±5% of Standard
Dissolved Oxygen	%	100%	99.8	±2% of Standard	100%	95.0	±0.5 mg/L of sat. val.
Temperature	°C		18.0			12.4	
Baro. Press.	mmHg		755.7			754.7	

TURBIDITY METER

Meter Type: Geotech **Model NO.:** **Unit ID NO.:** 5619

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
	NTU	NTU 20	20.2	±0.3 NTU of stan. Of 1.0 NTU or less. ±5% of standards >5 NTU	NTU 20	19.6	±0.3 NTU of stan. Of 1.0 NTU or less. ±5% of standards >5 NTU
	NTU	NTU 100	100		NTU 100	99	
	NTU	NTU 800	804		NTU 800	809	

PHOTIONIZATION DETECTOR

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	0.0		within 5 ppmv of BG	0.0		within 5 ppmv of BG
Span Gas	ppmv	100		±10% of standard	100		±10% of standard

O_2-LEL 4 GAS METER

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		±10% of standard	50		±10% of standard
O_2	%	20.9		±10% of standard	20.9		±10% of standard
H_2S	ppmv	25		±10% of standard	25		±10% of standard
CO	ppmv	50		±10% of standard	50		±10% of standard

☐ Equipment calibrated within the Acceptance Criteria specified for each parameter listed above.
☐ Equipment **not** calibrated within the Acceptance Criteria specified for each parameter listed above**.

MATERIALS RECORD

Deionized/Distilled Water Source:
Trip Blank Source:
Sample Preservative Source:
Disposable Filter Type:
DO Calibration Fluids Source:
Other:

Calibration Standard Lot #		Exp. Date
pH (4)	2GC933	03/24
pH (7)	2GD853	04/24
pH (10)	1GK654	11/23
ORP	2GD638	01/23
Spec. Conductivity	2GC138	03/23
Turb. Stan. NTU 20	35D	07/23
Turb. Stan. NTU 100	35D	07/23
Turb. Stan. NTU 800	35D	07/23
PID Scan Gas		
O_2 LEL		
Other		

NOTES:

STONE ENVIRONMENTAL

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Stone Environmental, Inc. Field Instrument Calibration Record

Project Name: Thetford Landfill **Date:** 11-22-2022 **Sampler (Sig/Date):**
SEI Project Number: 20-096 **Task:** Groundwater
Project Location: Post Mills VT **Checked By/Date:** LBR 11-22-2022
Weather Conditions (AM): **Weather Conditions (PM):**

MULTI-PARAMETER WATER QUALITY METER

Meter Type: YSI
Model NO.:
Unit ID NO.: 3666

AM Calibration — **Start Time** 06:45 / **End Time** 07:15

Post Calibration Check — **Start Time** 18:17 / **End Time** 18:25

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4	4.03	±0.1 pH Units			
pH (7)	SU	7	7.06	±0.1 pH Units	7	7.09	±0.3 pH Units
pH (10)	SU	10	10	±0.1 pH Units			
ORP	mV	252	264.0	±10 mV			±10 mV
Specific Conductance	µs/cm	1,014	1,022.0	±0.5% of Standard			±5% of Standard
Dissolved Oxygen	%	100%	102.0	±2% of Standard	100%		±0.5 mg/L of sat. val.
Temperature	°C		8.0				
Baro. Press.	mmHg		755.0				

TURBIDITY METER

Meter Type: Geotech **Model NO.:** **Unit ID NO.:** 7309

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
	NTU	NTU 20	20.2	±0.3 NTU of stan. Of	NTU 20	20.5	±0.3 NTU of stan. Of
	NTU	NTU 100	998	1.0 NTU or less. ±5%	NTU 100	101	1.0 NTU or less. ±5%
	NTU	NTU 800	800	of standards >5 NTU	NTU 800	792	of standards >5 NTU

PHOTIONIZATION DETECTOR

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	0.0		within 5 ppmv of BG	0.0		within 5 ppmv of BG
Span Gas	ppmv	100		±10% of standard	100		±10% of standard

O_2-LEL 4 GAS METER

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		±10% of standard	50		±10% of standard
O_2	%	20.9		±10% of standard	20.9		±10% of standard
H_2S	ppmv	25		±10% of standard	25		±10% of standard
CO	ppmv	50		±10% of standard	50		±10% of standard

☐ Equipment calibrated within the Acceptance Criteria specified for each parameter listed above.
☐ Equipment **not** calibrated within the Acceptance Criteria specified for each parameter listed above**.

MATERIALS RECORD

Deionized/Distilled Water Source:
Trip Blank Source:
Sample Preservative Source:
Disposable Filter Type:
DO Calibration Fluids Source:
Other:

Calibration Standard Lot #		Exp. Date
pH (4)	2GD849	04/24
pH (7)	2GD853	04/24
pH (10)	1GK654	11/23
ORP	2GD638	01/23
Spec. Conductivity	2GD564	04/23
Turb. Stan. NTU 20	35D	07/23
Turb. Stan. NTU 100	35D	07/23
Turb. Stan. NTU 800	35D	07/23
PID Scan Gas		
O_2 LEL		
Other		

NOTES: At shop

STONE ENVIRONMENTAL

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Stone Environmental, Inc. Field Instrument Calibration Record

Project Name: Thetford Landfill **Date:** 11-22-2022 **Sampler (Sig/Date):**
SEI Project Number: 20-096 **Task:** Groundwater
Project Location: Thetford VT **Checked By/Date:** LBR 11-22-2022
Weather Conditions (AM): **Weather Conditions (PM):**

MULTI-PARAMETER WATER QUALITY METER

Meter Type: YSI
Model NO.:
Unit ID NO.: 3740

AM Calibration — **Start Time** 06:45 / **End Time** 07:12

Post Calibration Check — **Start Time** 18:19 / **End Time** 18:30

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4	4.05	±0.1 pH Units			
pH (7)	SU	7	7.04	±0.1 pH Units	7	7.04	±0.3 pH Units
pH (10)	SU	10	10	±0.1 pH Units			
ORP	mV	248	239.0	±10 mV	220	218.4	±10 mV
Specific Conductance	µs/cm	1,013	1,033.0	±0.5% of Standard	1,167	1,168.0	±5% of Standard
Dissolved Oxygen	%	100%	99.0	±2% of Standard	100%	94.0	±0.5 mg/L of sat. val.
Temperature	°C		8.0			19.0	
Baro. Press.	mmHg		754.9			751.3	

TURBIDITY METER

Meter Type: Geotech **Model NO.:** **Unit ID NO.:** 5619

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
	NTU	NTU 20	19.6	±0.3 NTU of stan. Of 1.0 NTU or less. ±5% of standards >5 NTU	NTU 20	20.3	±0.3 NTU of stan. Of 1.0 NTU or less. ±5% of standards >5 NTU
	NTU	NTU 100	99		NTU 100	102	
	NTU	NTU 800	807		NTU 800	812	

PHOTIONIZATION DETECTOR

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	0.0		within 5 ppmv of BG	0.0		within 5 ppmv of BG
Span Gas	ppmv	100		±10% of standard	100		±10% of standard

O_2-LEL 4 GAS METER

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		±10% of standard	50		±10% of standard
O_2	%	20.9		±10% of standard	20.9		±10% of standard
H_2S	ppmv	25		±10% of standard	25		±10% of standard
CO	ppmv	50		±10% of standard	50		±10% of standard

☐ Equipment calibrated within the Acceptance Criteria specified for each parameter listed above.
☐ Equipment **not** calibrated within the Acceptance Criteria specified for each parameter listed above**.

MATERIALS RECORD

Deionized/Distilled Water Source:
Trip Blank Source:
Sample Preservative Source:
Disposable Filter Type:
DO Calibration Fluids Source:
Other:

Calibration Standard Lot #		Exp. Date
pH (4)	2AGD849	04/24
pH (7)	2GD853	04/24
pH (10)	1GK654	11/23
ORP	2GD638	01/23
Spec. Conductivity	2GD564	04/23
Turb. Stan. NTU 20		
Turb. Stan. NTU 100		
Turb. Stan. NTU 800		
PID Scan Gas		
O_2 LEL		
Other		

NOTES: At shop

STONE ENVIRONMENTAL

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MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

Sample collection began at 12:00 and ended at 13:36

WELL ID	MW-01		Equipment ID / SN
Sample Date	12-14-2022	Pump:	geotech 7705/786
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	0101
Sampling Method	Bladder Pump	Water Quality Sonde:	5836
Sampling Personnel	Aaron Rice	Turbidity Meter:	6460
Weather	high 20s, overcast, breezy	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 10:41 | Depth of Pump/Intake: _____ feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)	Depth to Water (btoc)	Height of Water Column		One Well Volume
44.80 feet	- 41.49 feet	= 3.31 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 1.15 liters

Time purging began (military):	11:09	3 X One Well Volume	3.45	liters
Time purging ended (military):	11:56	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
41.50	1,000	11:32	200	5.4	56	6.97	8.10	236	4.1
41.50	1,750	11:37	150	5.8	65	7.04	8.31	239	1.7
41.52	2,500	11:42	150	6.1	68	7.06	8.22	239	0.5
41.52	3,750	11:47	150	6.0	71	7.07	8.29	239	0
41.52	4,500	11:52	150	6.0	74	7.09	8.13	238	0
41.51	5,250	11:57	150	6.1	77	7.10	8.09	240	0

Total Vol. Removed: 5.5 Liters (√) ___Meters Calibrated (√) ✓Min. 3 Well Vol. Purged (√) ✓Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
MW-01		13:05	Aaron Rice	2 x 40mL VOA, 2 x 1L Amber 1, 2 x 1L Amber 2, 2 x 1L Amber 3, 2 x 1L Amber 4, Other, 1 x 250 mL Plastic	Nitric Acid, Sulfuric Acid, HCl, None	1,4-Dioxane SIM, SVOC 8270, PP Metals 6010, PFAS 537.1, VOCs 8021, VOC 8260, PCBs 8082, Total Metals, Other	

Sampling Personnel Signature _____ Date 12-14-2022

Calibrated at Geotech's Vermont service center
450 Weaver St., Suite #8
Winooski, VT 05404
(800) 558-5325 *Fax:* (802) 651-3051

Geotech Turbidity Meter Calibration Certificate

Unit Number 6460 Calibration Date 12/5/2022 Technician: Sean McCaffrey

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- [x] Cleaned Turbidity meter and Case
- [x] Visually inspect for damage and missing part

Battery voltage	5.85	**Pass**
Spare battery voltag	6.4	**Pass**

Calibration	Reading		Exp Date	
800 NTU:	800	**Pass**	2/24	**Pass**
100 NTU:	100	**Pass**	2/24	**Pass**
20 NTU:	20	**Pass**	2/24	**Pass**
<0.1 NTU:	0	**Pass**	2/24	**Pass**

Geotech Environmental Equipment, Inc. takes pride in ensuring this instrument is tested to function as specified by the manufacturer and was calibrated in accordance to manufacturer specifications. All calibration standards used are NIST traceable. With the provided lot numbers we can provide NIST documents on request. Call us at (800) 833-7958 and we will be glad to help.

Calibrated at Geotech's Vermont service center
450 Weaver St., Suite #8
Winooski, VT 05404
(800) 558-5325 *Fax:* (802) 651-3051

YSI Pro Series Calibration Certificate

Unit Number: 5836
Serial Number: 17C101607

Calibration Date 12/13/2022
Technician: Sean McCaffrey

Installed Probes
- ☑ Conductivity
- ☑ PH
- ☑ ORP
- ☑ DO

- ☑ Display is clear, and free of damage
- ☑ Cable and accessories are free of damage
- ☑ Firmware version is up to date.

Display Battery	3 V	**Pass**	Cable Length	4M	pH Probe Lot #	21E
Spare Battery	3.2 V	**Pass**	Cable Lot #	20K100120	ORP Probe Lot	18M
Cable Flex Test:	**Pass**		Cond Probe Lot #	18K100908	DO Probe Lot #	16F100131
			Bath Temp	20.7 °C		
			Meter Temp	20.72 °C		
			Variance	-0.02	**Pass**	

Cond

Calibration	Reading		Buffer Lot #	Exp. Date	
1.413 mS	1.413 mS	**Pass**	759.3	4/23	**Pass**

pH

Point Test	Calibration	Reading	mV	Slope		Buffer Lot #	Exp. Date	
2 Point	pH 7.00	pH 7.00	-26.8 mV			1GI1017	9/23	**Pass**
	pH 10.01	pH 10.01	-195.9 mV	169.1	**Pass**	1GFXX	6/23	**Pass**

ORP

Calibraition	Reading		Buffer Lot #	Exp. Date	
220 mV	220 mV	**Pass**	2GG952	4/23	**Pass**

DO

Barometer	Calibration	Reading	Variance		Test Fluid
759.6 mmHg	99.9 %	100 %	0.1%	**Pass**	Water Saturated Air

Time:	Min.	Sec.	Reading		Nitrogen Lot #
	1		1 %	**Pass**	1

Geotech Environmental Equipment, Inc. takes pride in ensuring this instrument is tested to function as specified by the manufacturer and was calibrated in accordance to manufacturer specifications. All calibration standards used are NIST traceable. With the provided lot numbers we can provide NIST documents on request. Call us at (800) 833-7958 and we will be glad to help.

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	MW-2		Equipment ID / SN
Sample Date	04-25-2023	Pump:	SEI #5
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	SEI #7
Sampling Method	Peri Pump	Water Quality Sonde:	3740
Sampling Personnel	Jodie Wright	Turbidity Meter:	5619
Weather	40s, raining	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 13:26 | Depth of Pump/Intake: _____ feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)	Depth to Water (btoc)	Height of Water Column		One Well Volume
22.35 feet	- 12.19 feet	= 10.16 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 3.53 liters

Time purging began (military):	13:25	3 X One Well Volume	10.58	liters
Time purging ended (military):	14:28	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
13.25	1,000	13:34	110	7.5	89	7.03	11.60	452	2.7
13.28	1,800	13:40	135	6.6	96	6.93	9.31	475	4.0
13.21	2,300	13:45	100	6.2	102	6.88	8.40	489	0.9
13.19	2,700	13:50	80	6.2	105	6.89	8.52	492	1.5
13.2	3,200	13:55	100	6.2	105	6.91	8.14	497	2.5
13.21	3,800	14:00	120	6.0	107	6.93	8.09	496	1.6
13.22	4,300	14:05	100	5.8	108	6.95	8.17	497	1.0
13.23	4,800	14:10	100	5.5	111	6.95	8.35	499	0.1
13.25	5,300	14:15	100	5.2	111	6.96	8.31	499	0.4
13.24	5,800	14:20	100	5.2	112	6.97	8.06	499	0.8
13.24	6,300	14:25	100	5.3	113	6.97	8.52	500	0.1

Total Vol. Removed: 7 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
MW-2		14:35	Jodie Wright	2 x 1L Amber 2	None	Dioxins/Furans 8290	

Sampling Personnel Signature _____ Date 04-25-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	MW-101D		Equipment ID / SN
Sample Date	04-25-2023	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	8222
Sampling Method	Geosub Pump	Water Quality Sonde:	3601
Sampling Personnel	Laura Rajnak	Turbidity Meter:	6432
Weather		Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 08:35 | Depth of Pump/Intake: 77.50 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
83.00 feet	-	72.22 feet	=	10.78 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 3.74 liters

Time purging began (military):	11:20	3 X One Well Volume	11.22	liters
Time purging ended (military):	12:30	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
72.3	15,000	11:35	1,000	11.1	18	5.00	0.04	1,261	0
72.25	30,000	11:50	1,000	11.1	-66	6.45	0	1,264	0
72.27	45,000	12:05	1,000	11.1	-66	6.45	0	1,262	0
72.22	60,000	12:20	1,000	11.0	-68	6.46	0	1,262	0

Total Vol. Removed: 70.0 Liters (√) ✓ Meters Calibrated (√) ✓ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
MW-101D	✓	12:30	Laura Rajnak	2 x 1L Amber 1, 2 x 1L Amber 4, 2 x 250 mL Plastic 1	None, Other	Dioxins/Furans 8290, PFAS 537.1, 1,4-Dioxane SIM	

Sampling Personnel Signature _____ Date 04-25-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	BR-1		Equipment ID / SN
Sample Date	04-25-2023	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	8222
Sampling Method	Geosub Pump	Water Quality Sonde:	3601
Sampling Personnel	Laura Rajnak	Turbidity Meter:	6432
Weather		Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 08:15 | Depth of Pump/Intake: 165.00 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)	Depth to Water (btoc)	Height of Water Column		One Well Volume
290.00 feet	- 40.61 feet	= 249.39 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 153.87 liters

Time purging began (military):	08:45	3 X One Well Volume	461.62	liters
Time purging ended (military):	10:07	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
45.49	38,500	09:40	700	10.3	-80	8.21	0	190	5.3
46.19	39,200	09:45	700	10.2	-86	8.22	0	190	4.9
46.33	39,900	09:50	700	10.1	-87	8.23	0	190	4.9
46.95	40,600	09:55	700	10.2	-96	8.24	0	190	2.5
47.18	41,300	10:00	700	10.3	-98	8.24	0	189	2.3
47.4	42,000	10:05	700	10.8	-101	8.24	0	190	2.2

Total Vol. Removed: 48.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-1		10:07	Laura Rajnak	2 x 1L Amber 1	None	Dioxins/Furans 8290	

Sampling Personnel Signature _____ Date 04-25-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

YSI started reading negative pH values. Continued purging well while troubleshooting. Used ph 7 cal solution to check and was reading 7.05. Reattached tubing and values were positive.

WELL ID	BR-2		Equipment ID / SN
Sample Date	04-25-2023	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	8222
Sampling Method	Geosub Pump	Water Quality Sonde:	3601
Sampling Personnel	Laura Rajnak, Julia Marcello	Turbidity Meter:	6432
Weather	50s partly cloudy	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 08:30 | Depth of Pump/Intake: 138.50 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
200.00 feet	-	77.47 feet	=	122.53 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 75.60 liters

Time purging began (military):	12:55	3 X One Well Volume	226.80	liters
Time purging ended (military):	14:02	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
75.60	30,000	13:25	1,000	10.2	41	6.69	0.03	571	0
75.61	45,000	13:40	1,000	10.1	-37	6.69	0.02	568	0
75.66	55,000	13:50	1,000	10.0	-42	6.88	0.02	567	0
NR	60,000	13:55	1,000	10.0	-39	6.87	0.01	568	0
75.69	65,000	14:00	1,000	10.0	-36	6.84	0	568	0

Total Vol. Removed: 65.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-2		14:02	Laura Rajnak, Julia Marcello	2 x 1L Amber 1		Dioxins/Furans 8290	

Sampling Personnel Signature _____ Date 04-25-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

Activated well pump
2L/min through YSI

WELL ID	BR-3		Equipment ID / SN
Sample Date	04-26-2023	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	8222
Sampling Method	Other	Water Quality Sonde:	3740
Sampling Personnel	Laura Rajnak	Turbidity Meter:	6432
Weather	50s sunny	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 11:20 | Depth of Pump/Intake: _____ feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
282.00	feet	40.65	feet	= 241.35	feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well) = 148.91 liters

Time purging began (military):	11:30	3 X One Well Volume	446.74	liters
Time purging ended (military):	12:25	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
68.45	280,000	11:50	14,000	10.1	54	7.16	0.44	2,581	23.8
76.30	308,000	12:00	14,000	10.2	63	7.16	0.44	2,571	15.4
88.3	336,000	12:10	14,000	10.4	69	7.16	0.08	2,551	11.6
86.2	350,000	12:15	14,000	10.4	71	7.15	0.09	2,534	12.8
89.5	364,000	12:20	14,000	10.3	73	7.16	0.07	2,510	11.7

Total Vol. Removed: 365.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-3		12:25	Laura Rajnak	2 x 1L Amber 1, 2 x 1L Amber 2, 2 x 250 mL Plastic 1	None	Dioxins/Furans 8290, PFAS 537.1, 1,4-Dioxane SIM	

Sampling Personnel Signature _____ Date 04-26-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

Pitless pump activated. 1 gallon/min through YSI, 5 gallon/min through hay bale

WELL ID	BR-4		Equipment ID / SN
Sample Date	04-26-2023	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	8222
Sampling Method	Other	Water Quality Sonde:	3740
Sampling Personnel	Laura Rajnak	Turbidity Meter:	6432
Weather		Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:47 | Depth of Pump/Intake: _____ feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)	Depth to Water (btoc)	Height of Water Column		One Well Volume
405.00 feet	- 7.97 feet	= 397.03 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 244.97 liters

Time purging began (military):	09:58	3 X One Well Volume	734.90	liters
Time purging ended (military):	10:50	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
94.35	681,000	10:28	22,700	10.1	-107	8.24	0.10	183	5.5
NR	703,000	10:33	22,700	10.1	-120	8.21	0.35	180	5.7
116	726,000	10:38	22,700	10.1	-121	8.22	0.09	179	2.9
	749,000	10:43	22,700	10.1	-124	8.27	0.08	178	4.7
	772,000	10:48	22,700	10.1	-125	8.27	0.07	177	4.5

Total Vol. Removed: 772.0 Liters (√) ✓ Meters Calibrated (√) ✓ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-4		10:50	Laura Rajnak	2 x 1L Amber 1	None	Dioxins/Furans 8290	

Sampling Personnel Signature _____ Date 04-26-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford	Comments:
SEI Project Number:	20-096	
Client:		
Project Manager:	Rebecca Treat	

WELL ID	BR-201		Equipment ID / SN
Sample Date	04-25-2023	Pump:	SEI #5
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	SEI #7
Sampling Method	Peri Pump	Water Quality Sonde:	3740
Sampling Personnel	Jodie Wright	Turbidity Meter:	5619
Weather	40s, raining	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:18 | Depth of Pump/Intake: 55 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
105.00 feet	-	13.26 feet	=	91.74 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 0 liters

Time purging began (military):	11:49	3 X One Well Volume	0	liters
Time purging ended (military):	12:59	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
	3,000	12:01	250	8.9	174	8.17	1.58	180	1.8
	4,000	12:09	125	9.2	76	8.17	0.36	180	2.2
	5,000	12:15	165	9.1	7	8.17	0.26	180	1.7
	8,000	12:30	200	9.5	-131	8.18	0.19	180	5.6
	8,700	12:35	140	9.5	-143	8.21	0.20	180	16.2
	9,400	12:40	140	9.8	-149	8.21	0.17	180	2.8
	10,000	12:45	120	9.1	-157	8.23	0.18	180	3.8
	10,700	12:50	140	9.0	-160	8.23	0.16	180	3.5
15.21	11,400	12:55	140	9.3	-163	8.23	0.17	180	2.1

Total Vol. Removed: 13,000.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-201		13:05	Jodie Wright	2 x 1L Amber 2	None	Dioxins/Furans 8290	

Sampling Personnel Signature _____ Date 04-25-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

Well is flowing artesian. Water walk coming out of tubing before connecting to pump. Total volume purged is a minimum value; well was flowing out of well before beginning low flow methods. At least 5 gallons purged.

WELL ID	BR-202		Equipment ID / SN
Sample Date	04-25-2023	Pump:	SEI #5
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	SEI #7
Sampling Method	Peri Pump	Water Quality Sonde:	3740
Sampling Personnel	Jodie Wright	Turbidity Meter:	5619
Weather	40s, mostly cloudy	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 09:37 | Depth of Pump/Intake: 69 feet | Measuring Point Description: TOC | Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
150.00 feet	-	0 feet	=	150.00 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 0 liters

Time purging began (military):	09:59	3 X One Well Volume	0	liters
Time purging ended (military):	11:04	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
	5,000	10:20	240	9.6	221	7.59	4.90	153	93.0
	7,200	10:27	365	9.3	225	7.88	3.69	152	68.0
	8,500	10:32	260	10.2	225	7.88	3.53	153	54.0
	10,000	10:37	300	9.2	224	7.90	3.57	152	56.0
	13,000	10:45	375	8.4	220	8.00	3.55	152	55.7
	14,500	10:52	215	8.5	217	8.02	3.79	152	53.2
	16,000	10:58	250	8.8	214	8.03	3.55	152	54.7
	17,500	11:03	300	9.1	212	8.04	3.53	152	54.0

Total Vol. Removed: 19,000.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
BR-202		11:05	Jodie Wright	2 x 1L Amber 2	None	Dioxins/Furans 8290	

Sampling Personnel Signature _____ Date 04-25-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

Generator out of gas shortly after started purging. Swapped generators.

WELL ID	Liebon Well		Equipment ID / SN
Sample Date	04-25-2023	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	8222
Sampling Method	Geosub Pump	Water Quality Sonde:	3601
Sampling Personnel	Laura Rajnak, Julia Marcello	Turbidity Meter:	6432
Weather	50s scattered showers and sunshine	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 14:30

Depth of Pump/Intake: 152.00 feet

Measuring Point Description: TOC

Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
282.00 feet	-	22.10 feet	=	259.90 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 160.36 liters

Time purging began (military):	15:00	3 X One Well Volume	481.07	liters
Time purging ended (military):	16:02	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
26.3	30,000	15:30	1,000	8.7	-175	8.57	0	293	14.0
28.25	45,000	15:45	1,000	8.6	-179	8.58	0	294	13.2
29.25	55,000	15:55	1,000	8.6	-183	8.59	0	293	12.9
29.6	60,000	15:56	1,000	8.5	-186	8.59	0	293	11.9

Total Vol. Removed: 62.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
Liebon Well		16:02	Laura Rajnak, Julia Marcello	2 x 1L Amber 1	None	Dioxins/Furans 8290	

Sampling Personnel Signature _____ Date 04-25-2023

MONITORING WELL SAMPLING FORM

STONE ENVIRONMENTAL INC

Project Name:	Thetford Landfill
SEI Project Number:	20-096
Client:	
Project Manager:	Rebecca Treat

Comments:

Could not get GeoPump past ~140'. Minimum of 1 hr purged before sampled.

WELL ID	Former Supply Well		Equipment ID / SN
Sample Date	04-26-2023	Pump:	5574
SOP/SSP #'s Followed	SEI SOP 5.49.1	Water Level Indicator:	8222
Sampling Method	Geosub Pump	Water Quality Sonde:	3740
Sampling Personnel	Laura Rajnak	Turbidity Meter:	6432
Weather	60s sunny	Other:	HDPE

Calculate Purge Volumes

Time of water level measurement (military): 08:25

Depth of Pump/Intake: 140.00 feet

Measuring Point Description: TOC

Well Screen Length:

Total Well Depth (btoc)		Depth to Water (btoc)		Height of Water Column		One Well Volume
300.00 feet	-	58.71 feet	=	241.29 feet	X 0.155 liters/feet (1-inch well) X 0.347 liters/feet (1.5-inch well) X 0.617 liters/feet (2-inch well)	= 148.88 liters

Time purging began (military):	13:23	3 X One Well Volume	446.63	liters
Time purging ended (military):	14:30	5 X One Well Volume		liters

Water Level (ft btoc)	Cumulative Vol. Purged (mL)	Time (Military)	Flow Rate (mL/min)	Temp (ºC) (± 3%)	ORP (mV) (± 10 mV)	pH (su) (± 0.1 su)	DO (mg/L) (± 10% or 3 consecutive readings < 0.5 mg/L))	Conductivity (µS) (± 3%)	Turbidity (NTU) (± 10% or 3 consecutive readings <5 NTU)
60.06	25,000	13:48	1,000	8.6	122	7.79	6.95	272	16.3
60.11	35,000	13:58	1,000	8.6	122	7.78	6.95	272	15.7
60.14	45,000	14:08	1,000	8.6	123	7.75	6.98	272	15.1
60.19	55,000	14:18	1,000	8.6	122	7.74	7.02	272	13.5
60.2	65,000	14:28	1,000	8.6	123	7.72	7.05	272	14.0

Total Vol. Removed: 65.0 Liters (√) ✓ Meters Calibrated (√) ___ Min. 3 Well Vol. Purged (√) ✓ Parameters Stable for 3 consecutive measurements

Sample Identification	Field Dup.	Time Collected (Military)	Sampled By (Initials)	Container	Preservation	Analysis	Additional Comments
Former Supply Well		14:30	Laura Rajnak	2 x 1L Amber 1, 2 x 1L Amber 2, 2 x 250 mL Plastic 1	None, Other	Dioxins/Furans 8290, PFAS 537.1, 1,4-Dioxane SIM	

Sampling Personnel Signature _____ Date 04-26-2023

Observation and Remarks

Site Information

Project Name	Thetford
Project Number	20-096
Project Manager	Rebecca Treat
Location	Thetford
Date	04-25-2023

Personnel On Site

Stone Personnel On Site	Jodie Wright, Laura Rajnak
Time On Site	07:54 (-4 GMT)
Time Off Site	10:03 (-4 GMT)

Owner / Sub-Contractor / Visitor On Site

Observation Entry

Weather	40s, cloudy and rain expected
Objectives	Groundwater monitoring

Notes & Photo(s)	
Time	07:58 (-4 GMT)
Notes	JGW and LBR on site. Had to cut down tree branches to access landfill. Located BR-1.
Photo(s)	
Notes & Photo(s)	
Time	08:39 (-4 GMT)
Notes	JGW takes water levels from BR-1, MW-101, and BR-2 before starting submersible pump at BR-1. LBR shows JGW how to use geo sub pump.
Photo(s)	
Notes & Photo(s)	
Time	09:30 (-4 GMT)
Notes	JGW and LBR locate BR-201, BR-202, and MW-2. Water level measurements are taken. BR-202 is flowing artesian.

Observation and Remarks

Photo(s)	
Notes & Photo(s)	
Time	09:58 (-4 GMT)
Notes	Had difficulty getting 1/4” HDPE tubing down well. Field staff believe tubing is getting wound up in well. JGW end up tying the tubing to the water level meter. Tubing is placed at 69 feet below top of casing— there was still difficulty getting it to the full 75’ btoc, which would be the middle of the water column.
Photo(s)	
Notes & Photo(s)	
Time	10:10 (-4 GMT)
Notes	Purging BR-202. Water is pink from rust from well, which was stirred up when getting tubing into well. JGW will purge water until slightly more clear before connecting to YSI.
Photo(s)	
Notes & Photo(s)	
Time	10:19 (-4 GMT)
Notes	Connected BR-202 to YSI.
Photo(s)	
Notes & Photo(s)	
Time	11:16 (-4 GMT)
Notes	Finished at BR-202. At least 5 gallons were purged. Parameters stabilized.
Photo(s)	
Notes & Photo(s)	
Time	11:50 (-4 GMT)
Notes	Took a long time to get tubing down well BR-201, and it is installed at approximately 55 feet bgs. The tubing should be at 59.13 ft bgs (halfway down water column), but tubing was having difficulty. Start purging.
Photo(s)	

Observation and Remarks

Notes & Photo(s)	
Time	13:10 (-4 GMT)
Notes	Purging at MW-2.
Photo(s)	

Notes & Photo(s)	
Time	14:35 (-4 GMT)
Notes	Starting to sample at MW-2.
Photo(s)	

Notes & Photo(s)	
Time	14:55 (-4 GMT)
Notes	Finished sampling. JGW will clean up area and head up to sample PMCWS well. LBR and JSM headed over to sample Leibon well.
Photo(s)	

Notes & Photo(s)	
Time	15:10 (-4 GMT)
Notes	Turned pump in PMCWS on to manual. Will wait 10 minutes before sampling for dioxins/furans.
Photo(s)	

Notes & Photo(s)	
Time	15:25 (-4 GMT)
Notes	Sampled PMCWS at 1425. YSI readings are as follows: Temp: 7.6 C DO: 3.80 mg/L SPC: 160.2 uS/cm pH: 8.09 ORP: 111.1 mV
Photo(s)	

Observation and Remarks

Notes & Photo(s)	
Time	15:33 (-4 GMT)
Notes	Pump station locked and keys returned to place of origin.
Photo(s)	

Notes & Photo(s)	
Time	15:49 (-4 GMT)
Notes	JSM off site.
Photo(s)	

Notes & Photo(s)	
Time	16:00 (-4 GMT)
Notes	LBR sampling Leibon Well.
Photo(s)	

Notes & Photo(s)	
Time	16:17 (-4 GMT)
Notes	JGW and LBR off site.
Photo(s)	

Notes & Photo(s)	
Time	18:02 (-4 GMT)
Notes	Finished end of day calibration of instruments at the shop.
Photo(s)	

Signature

Signature	
Date	04-25-2023

Observation and Remarks

Site Information

Project Name	Thetford Landfill
Project Number	20-096
Project Manager	Rebecca Treat
Location	Thetford VT
Date	04-25-2023

Personnel On Site

Stone Personnel On Site	Laura Rajnak, Julia Marcello, Jodie Wright
Time On Site	08:05 (-4 GMT)
Time Off Site	16:30 (-4 GMT)

Owner / Sub-Contractor / Visitor On Site

Observation Entry

Weather	50s light rain
Objectives	Groundwater sample

Notes & Photo(s)	
Time	06:15 (-4 GMT)
Notes	JGW and LBR at shop for calibration and final packing. JSM to stay behind for second GeoSub controller delivery
Photo(s)	
Notes & Photo(s)	
Time	08:30 (-4 GMT)
Notes	At BR-1 to start. JGW gauged wells within vicinity while LBR measured tubing length. LBR trained JGW on GeoSub pump. BR-1 start purging then drove over to BR-202 for JGW to start on peri pump locations. See Groundwater Monitoring forms for more detail.
Photo(s)	
Notes & Photo(s)	
Time	10:55 (-4 GMT)
Notes	FRB-042523 collected at MW-101D location
Photo(s)	
Notes & Photo(s)	
Time	10:57 (-4 GMT)
Notes	EB-042523 collected from pouring PFAS free water through a decontamination Geosub housing
Photo(s)	
Notes & Photo(s)	
Time	11:30 (-4 GMT)
Notes	JSM on site with second Geosub controller
Photo(s)	
Notes & Photo(s)	
Time	15:20 (-4 GMT)

Observation and Remarks

Notes	Decon procedures between sampling locations included disassembly of GeoSub pump, Alconox scrub and clean water rinse. New HDPE tubing used at each well. Tubing measured using arm lengths so depths are approximate.
Photo(s)	

Notes & Photo(s)

Time	15:21 (-4 GMT)
Notes	JSM left Liebon Well to join JGW while she sampled for safety measures
Photo(s)	

Signature

Signature	
Date	04-25-2023

Observation and Remarks

Site Information

Project Name	Thetford Landfill
Project Number	20-096
Project Manager	Rebecca Treat
Location	Thetford VT
Date	04-26-2023

Personnel On Site

Stone Personnel On Site	Laura Rajnak
Time On Site	08:00 (-4 GMT)
Time Off Site	15:00 (-4 GMT)

Owner / Sub-Contractor / Visitor On Site

Name/Company	John Thibodault
Time In	08:00 (-4 GMT)
Time Out	12:30 (-4 GMT)
Notes	

Observation Entry

Weather	50s partly cloudy
Objectives	Finish groundwater sampling at BR-3, BR-4, Former Supply Well

Notes & Photo(s)	
Time	08:00 (-4 GMT)
Notes	At Former Supply Well
Photo(s)	

Notes & Photo(s)	
Time	08:50 (-4 GMT)
Notes	Pump not working. Pulling pump to dispose of. Property owner opting to keep the tubing and wire.

Observation and Remarks

Photo(s)	
Notes & Photo(s)	
Time	09:17 (-4 GMT)
Notes	Total depth = 300’ Measured by Wragg Bros
Photo(s)	
Notes & Photo(s)	
Time	09:36 (-4 GMT)
Notes	At Stone Well. Will go back to Former Supply Well to sample with GeoSub pump
Photo(s)	
Notes & Photo(s)	
Time	10:55 (-4 GMT)
Notes	Finished at Stone Well. Area of disturbance spread with hay bale.

Observation and Remarks

Photo(s)	 

Notes & Photo(s)

Time	11:20 (-4 GMT)
Notes	Pump activated at BR-3
Photo(s)	 

Notes & Photo(s)

Time	12:39 (-4 GMT)

Observation and Remarks

Notes	BR-3 complete.
Photo(s)	

Notes & Photo(s)

Time	13:42 (-4 GMT)
Notes	Pitiless pump and tubing construction had electrical tape and nylon rope. Potential PFAS source.
Photo(s)	 

Signature

Observation and Remarks

Signature	
Date	04-26-2023

Stone Environmental, Inc. Field Instrument Calibration Record

Project Name: Thetford **Date:** 04-25- **Sampler (Sig/Date):**
SEI Project Number: 20-096 **Task:** Groundwater monitoring
Project Location: Therford **Checked By/Date:** JGW 04-25-2023
Weather Conditions (AM): 40, raining **Weather Conditions (PM):** 40s, raining

MULTI-PARAMETER WATER QUALITY METER

Meter Type: Geotech **Model NO.:** **Unit ID NO.:** 3601

AM Calibration — **Start Time** 06:22 / **End Time** 06:45

Post Calibration Check — **Start Time** 06:29 / **End Time** 18:04

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4	4.08	±0.1 pH Units			
pH (7)	SU	7	7.04	±0.1 pH Units	7	7.16	±0.3 pH Units
pH (10)	SU	10	10	±0.1 pH Units			
ORP	mV	240	240.8	±10 mV	240	246.6	±10 mV
Specific Conductance	µs/cm	1,285	1,289.0	±0.5% of Standard	1,114	1,056.0	±5% of Standard
Dissolved Oxygen	%	100%	98.4	±2% of Standard	100%	98.9	±0.5 mg/L of sat. val.
Temperature	°C		20.0			12.5	
Baro. Press.	mmHg		749.7			750.8	

TURBIDITY METER

Meter Type: Geotech **Model NO.:** **Unit ID NO.:** 5619

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
	NTU	NTU 20	20.0	±0.3 NTU of stan. Of	NTU 20	19.3	±0.3 NTU of stan. Of
	NTU	NTU 100	101	1.0 NTU or less. ±5%	NTU 100	102	1.0 NTU or less. ±5%
	NTU	NTU 800	796	of standards >5 NTU	NTU 800	817	of standards >5 NTU

PHOTIONIZATION DETECTOR

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	0.0		within 5 ppmv of BG	0.0		within 5 ppmv of BG
Span Gas	ppmv	100		±10% of standard	100		±10% of standard

O_2-LEL 4 GAS METER

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		±10% of standard	50		±10% of standard
O_2	%	20.9		±10% of standard	20.9		±10% of standard
H_2S	ppmv	25		±10% of standard	25		±10% of standard
CO	ppmv	50		±10% of standard	50		±10% of standard

☐ Equipment calibrated within the Acceptance Criteria specified for each parameter listed above.
☐ Equipment **not** calibrated within the Acceptance Criteria specified for each parameter listed above**.

MATERIALS RECORD

Deionized/Distilled Water Source:
Trip Blank Source:
Sample Preservative Source:
Disposable Filter Type:
DO Calibration Fluids Source:
Other:

Calibration Standard Lot #		Exp. Date
pH (4)	2GF467	06/24
pH (7)	2GH674	08/24
pH (10)	2GI302	09/24
ORP	2GH442	05/23
Spec. Conductivity	2GH1493	08/23
Turb. Stan. NTU 20	48D	05/24
Turb. Stan. NTU 100	32D	04/23
Turb. Stan. NTU 800	48D	05/24
PID Scan Gas		
O_2 LEL		
Other		

NOTES:

STONE ENVIRONMENTAL

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations. **= If meter reading is not within acceptance criteria , clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the intstrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

Stone Environmental, Inc. Field Instrument Calibration Record

Project Name: Thetford **Date:** 04-25- **Sampler (Sig/Date):**
SEI Project Number: 20-096 **Task:** Groundwater monutoeing
Project Location: Thetford **Checked By/Date:** JGW 04-25-2023
Weather Conditions (AM): 40s raining **Weather Conditions (PM):** 40s, raining

MULTI-PARAMETER WATER QUALITY METER

Meter Type: Geotech
Model NO.:
Unit ID NO.: 3740

AM Calibration — **Start Time** 06:26 / **End Time** 06:44

Post Calibration Check — **Start Time** 17:49 / **End Time** 18:49

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4	4.07	±0.1 pH Units			
pH (7)	SU	7	7.09	±0.1 pH Units	7	7.12	±0.3 pH Units
pH (10)	SU	10	10	±0.1 pH Units			
ORP	mV	220	240.0	±10 mV	240	247.0	±10 mV
Specific Conductance	µs/cm	1,285	1,297.0	±0.5% of Standard	1,114	1,133.0	±5% of Standard
Dissolved Oxygen	%	100%	100.8	±2% of Standard	100%	98.4	±0.5 mg/L of sat. val.
Temperature	°C		20.0			12.5	
Baro. Press.	mmHg		244.8			751.8	

TURBIDITY METER

Meter Type: Geotech **Model NO.:** **Unit ID NO.:** 6432

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
	NTU	NTU 20	20.6	±0.3 NTU of stan. Of	NTU 20	20.0	±0.3 NTU of stan. Of
	NTU	NTU 100	99	1.0 NTU or less. ±5%	NTU 100	116	1.0 NTU or less. ±5%
	NTU	NTU 800	801	of standards >5 NTU	NTU 800	784	of standards >5 NTU

PHOTIONIZATION DETECTOR

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	0.0		within 5 ppmv of BG	0.0		within 5 ppmv of BG
Span Gas	ppmv	100		±10% of standard	100		±10% of standard

O_2-LEL 4 GAS METER

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		±10% of standard	50		±10% of standard
O_2	%	20.9		±10% of standard	20.9		±10% of standard
H_2S	ppmv	25		±10% of standard	25		±10% of standard
CO	ppmv	50		±10% of standard	50		±10% of standard

☐ Equipment calibrated within the Acceptance Criteria specified for each parameter listed above.
☐ Equipment **not** calibrated within the Acceptance Criteria specified for each parameter listed above**.

MATERIALS RECORD

Deionized/Distilled Water Source:
Trip Blank Source:
Sample Preservative Source:
Disposable Filter Type:
DO Calibration Fluids Source:
Other:

Calibration Standard Lot #		Exp. Date
pH (4)	2GF467	06/24
pH (7)	2GH674	08/24
pH (10)	2GI302	09/24
ORP	2GH442	05/23
Spec. Conductivity	2GH1493	08/23
Turb. Stan. NTU 20	48D	05/24
Turb. Stan. NTU 100	32D	04/23
Turb. Stan. NTU 800	48D	05/24
PID Scan Gas		
O_2 LEL		
Other		

NOTES:

STONE ENVIRONMENTAL

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations. **= If meter reading is not within acceptance criteria , clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the intstrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

Stone Environmental, Inc. Field Instrument Calibration Record

Project Name: Thetford Landfill **Date:** 04-26- **Sampler (Sig/Date):**
SEI Project Number: 20-096 **Task:** Groundwater sampling
Project Location: Thetford VT **Checked By/Date:** LBR 04-26-2023
Weather Conditions (AM): High 30s clear **Weather Conditions (PM):**

MULTI-PARAMETER WATER QUALITY METER

Meter Type: YSI Pro Plus
Model NO.:
Unit ID NO.: 3740

AM Calibration — **Start Time** 06:20 / **End Time** 06:50

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)
pH (4)	SU	4	4.03	±0.1 pH Units
pH (7)	SU	7	7.04	±0.1 pH Units
pH (10)	SU	10	10	±0.1 pH Units
ORP	mV	238	241.0	±10 mV
Specific Conductance	µs/cm	1,300	1,322.0	±0.5% of Standard
Dissolved Oxygen	%	100%	98.0	±2% of Standard
Temperature	°C		20.5	
Baro. Press.	mmHg		753.8	

Post Calibration Check — **Start Time** 16:42 / **End Time** 16:42

Standard Value	Meter Value	*Acceptance Criteria (PM)
7	7.08	±0.3 pH Units
244	244.2	±10 mV
1,201	1,214.0	±5% of Standard
100%	96.0	±0.5 mg/L of sat. val.
	16.5	
	751.1	

TURBIDITY METER

Meter Type: GeoTech **Model NO.:** **Unit ID NO.:** 6432

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
	NTU	NTU 20	20.5	±0.3 NTU of stan. Of	NTU 20	20.1	±0.3 NTU of stan. Of
	NTU	NTU 100	101	1.0 NTU or less. ±5%	NTU 100	103	1.0 NTU or less. ±5%
	NTU	NTU 800	809	of standards >5 NTU	NTU 800	822	of standards >5 NTU

PHOTIONIZATION DETECTOR

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	0.0		within 5 ppmv of BG	0.0		within 5 ppmv of BG
Span Gas	ppmv	100		±10% of standard	100		±10% of standard

O_2-LEL 4 GAS METER

Meter Type: **Model NO.:** **Unit ID NO.:**

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		±10% of standard	50		±10% of standard
O_2	%	20.9		±10% of standard	20.9		±10% of standard
H_2S	ppmv	25		±10% of standard	25		±10% of standard
CO	ppmv	50		±10% of standard	50		±10% of standard

☐ Equipment calibrated within the Acceptance Criteria specified for each parameter listed above.
☐ Equipment **not** calibrated within the Acceptance Criteria specified for each parameter listed above**.

MATERIALS RECORD

Deionized/Distilled Water Source:
Trip Blank Source:
Sample Preservative Source:
Disposable Filter Type:
DO Calibration Fluids Source:
Other:

Calibration Standard Lot #		Exp. Date
pH (4)	2GF467	06/24
pH (7)	2GH674	08/24
pH (10)	2GI302	08/24
ORP	2GH442	05/23
Spec. Conductivity	2GH1493	08/23
Turb. Stan. NTU 20	35D	07/23
Turb. Stan. NTU 100	35D	07/23
Turb. Stan. NTU 800	35D	07/23
PID Scan Gas		
O_2 LEL		
Other		

NOTES:

STONE ENVIRONMENTAL

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations. **= If meter reading is not within acceptance criteria , clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the intstrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

Appendix C: Tables

Table C-1
METALS Analytical Results - Groundwater

Sample ID		VGES	MW-1		BR-1		BR-2		BR-2-FD		BR-201		RPD
Sample Date	CAS#		12/14/2022	Q	11/22/2022	Q	11/22/2022	Q	11/22/2022	Q	11/21/2022	Q	
		(µg/L)											
Sodium	7440-23-5	NE	NA		**4100**		**2200**		**2200**		**5800**		0%
Antimony	7440-36-0	NE	1	U	1	U	1	U	1	U	1	U	-
Arsenic	7440-38-2	10	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	-
Beryllium	7440-41-7	4	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	-
Cadmium	7440-43-9	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	-
Chromium	7440-47-3	100	1	U	**2.3**		**1.4**		**1.2**		**1.6**		15%
Copper	7440-50-8	1300	1	U	1	U	**2.5**		**3.7**		**1.9**		39%
Lead	7439-92-1	15	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
Nickel	7440-02-0	100	5	U	5	U	5	U	5	U	5	U	-
Selenium	7782-49-2	50	5	U	5	U	5	U	5	U	5	U	-
Silver	7440-22-4	NE	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	-
Thallium	7440-28-0	2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	-
Zinc	7440-66-6	NE	10	U	10	U	10	U	10	U	10	U	-
Mercury	7439-97-6	2	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	-

Sample ID		VGES	BR-202		BR-3		BR-4		MW-101D		MW-2	
Sample Date	CAS#		11/21/2022	Q	11/22/2022	Q	11/21/2022	Q	11/22/2022	Q	11/21/2022	Q
		(µg/L)										
Sodium	7440-23-5	NE	**3500**		**82000**		**29000**		**12000**		**2200**	
Antimony	7440-36-0	NE	1	U	1	U	1	U	1	U	1	U
Arsenic	7440-38-2	10	**1.5**		0.8	U	0.8	U	**3.4**		0.8	U
Beryllium	7440-41-7	4	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Cadmium	7440-43-9	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Chromium	7440-47-3	100	**3.8**		**1.1**		**4.6**		**4.1**		**5.1**	
Copper	7440-50-8	1300	**7.2**		**37**		**1.9**		**43**		1	U
Lead	7439-92-1	15	0.5	U	**1**		**0.88**		0.5	U	0.5	U
Nickel	7440-02-0	100	5	U	5	U	5	U	**18**		5	U
Selenium	7782-49-2	50	5	U	5	U	5	U	5	U	5	U
Silver	7440-22-4	NE	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Thallium	7440-28-0	2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	7440-66-6	NE	10	U	10	U	10	U	10	U	**62**	
Mercury	7439-97-6	2	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Not analyzed
RPD - Relative Percent Difference

Table C-2
METALS Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
Sodium	7440-23-5	NE	**19000**	
Antimony	7440-36-0	NE	1	U
Arsenic	7440-38-2	10	0.8	U
Beryllium	7440-41-7	4	0.4	U
Cadmium	7440-43-9	5	0.2	U
Chromium	7440-47-3	100	**3.8**	
Copper	7440-50-8	1300	**9**	
Lead	7439-92-1	15	**2.3**	
Nickel	7440-02-0	100	5	U
Selenium	7782-49-2	50	5	U
Silver	7440-22-4	NE	0.2	U
Thallium	7440-28-0	2	0.2	U
Zinc	7440-66-6	NE	10	U
Mercury	7439-97-6	2	0.1	U

Key:
VGES - Vermont Groundwater Enforcement Standard - Groundwater Protection Rule and Strategy, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-3
METALS Analytical Results - Public Water Supply

Sample ID		MCL/SMCL	PMCWS Well	
Sample Date	CAS#		11/22/2022	Q
		(µg/L)		
Sodium	7440-23-5	250000	**5300**	
Antimony	7440-36-0	NE	1	U
Arsenic	7440-38-2	10	**4.1**	
Beryllium	7440-41-7	4	0.4	U
Cadmium	7440-43-9	5	0.2	U
Chromium	7440-47-3	100	**1.3**	
Copper	7440-50-8	1300	1	U
Lead	7439-92-1	15	0.5	U
Nickel	7440-02-0	100	5	U
Selenium	7782-49-2	50	5	U
Silver	7440-22-4	100	0.2	U
Thallium	7440-28-0	2	0.2	U
Zinc	7440-66-6	5000	10	U
Mercury	7439-97-6	2	0.1	U

Key:
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
SMCL - Secondary Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-4
PFAS Analytical Results - Groundwater

SampleID		VGES	MW-1		BR-1		BR-2		BR-2-FD		BR-201		BR-202		RPD
Sample Date	CAS#		12/14/2022	Q	11/22/2022	Q	11/22/2022	Q	11/22/2022	Q	11/21/2022	Q	11/21/2022	Q	%
		(ng/L)													
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	**3.6**		2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorodecanoic acid (PFDA)	335-76-2	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorononanoic acid (PFNA)	375-95-1	20	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorooctanoic acid (PFOA)	335-67-1	20	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-
Total Regulated PFAS		20	2.0	U	2.0	U	1.9	U	1.9	U	1.9	U	2.0	U	-

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
RPD - Relative Percent Difference

Table C-4
PFAS Analytical Results - Groundwater

Sample ID		VGES	BR-3				BR-4		MW-101D				MW-101D-FD		RPD
Sample Date	CAS#		11/22/2022	Q	4/25/2023	Q	11/21/2022	Q	11/22/2022	Q	4/25/2023	Q	4/25/2023	Q	%
		(ng/L)													
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluorodecanoic acid (PFDA)	335-76-2	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	**3.6**		1.9	U	2.1	U	**3.5**		**4.9**		**6.0**		20%
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	2.1	U	1.9	U	2.1	U	**3.3**		**4.5**		**4.3**		5%
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	**6.8**		1.9	U	2.1	U	**5.9**		**4.8**		**4.3**		11%
Perfluorononanoic acid (PFNA)	375-95-1	20	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluorooctanoic acid (PFOA)	335-67-1	20	**27**		**5.6**		2.1	U	**9.2**		**10**		**9.7**		3%
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	2.1	U	1.9	U	2.1	U	2.1	U	2.0	U	2.0	U	-
Total Regulated PFAS		20	**31**		**5.6**		2.1	U	**16.0**		**19**		**20**		3%

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
RPD - Relative Percent Difference

Table C-4
PFAS Analytical Results - Groundwater

Sample ID		VGES	MW-2		Trip Blank				EB-112222		EB-042523		FRB-112122		FRB-042523	
Sample Date	CAS#		11/21/2022	Q	11/21/2022	Q	4/25/2023	Q	11/22/2022	Q	4/25/2023	Q	11/21/2022	Q	4/25/2023	Q
		(ng/L)														
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorononanoic acid (PFNA)	375-95-1	20	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	**3.0**		1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	1.9	U	1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U
Total Regulated PFAS		20	**3.0**		1.9	U	1.9	U	2	U	2.1	U	2.0	U	2.0	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-5
PFAS Sample Analytical Results - Private Drinking Water

SampleID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(ng/L)		
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	1.8	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	1.8	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	1.8	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	1.8	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	1.8	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	1.8	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	1.8	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	1.8	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	1.8	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	1.8	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	1.8	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	1.8	U
Perfluorononanoic acid (PFNA)	375-95-1	20	1.8	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	1.8	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	1.8	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	1.8	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	1.8	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	1.8	U
Total Regulated PFAS		20	1.8	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
ng/L - nanograms per liter (parts per trillion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-6
PFAS Analytical Results - Public Water Supply

Sample ID		MCL	PMCWS WELL		FORMER SUPPLY WELL	
Sample Date	CAS#		11/22/2022	Q	4/25/2023	Q
		(ng/L)				
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	1.8	U	2.0	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	1.8	U	2.0	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	1.8	U	2.0	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	1.8	U	2.0	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	1.8	U	2.0	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	1.8	U	2.0	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	1.8	U	2.0	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	1.8	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	1.8	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	1.8	U	2.0	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	1.8	U	2.0	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	1.8	U	2.0	U
Perfluorononanoic acid (PFNA)	375-95-1	20	1.8	U	2.0	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	1.8	U	2.0	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	1.8	U	2.0	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	1.8	U	2.0	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	1.8	U	2.0	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	1.8	U	2.0	U
Total Regulated PFAS		20	1.8	U	2.0	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
ng/L - nanograms per liter (parts per trillion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-7
PCBs Analytical Results - Groundwater

SampleID		VGES	MW-1		MW-2		BR-1		BR-2		BR-2-FD		RPD
Sample Date	CAS#		12/14/2022	Q	11/21/2022	Q	11/22/2022	Q	11/22/2022	Q	11/22/2022	Q	%
		(µg/L)											
Aroclor-1016	12674-11-2	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1221	11104-28-2	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1232	11141-16-5	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1242	53469-21-9	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1248	12672-29-6	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1254	11097-69-1	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1260	11096-82-5	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1262	37324-23-5	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Aroclor-1268	11100-14-4	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Total PCBs	1336-36-3	0.5	0.21	U	0.21	U	0.2	U	0.2	U	0.21	U	-
Sample ID		VGES	BR-3		BR-4		MW-101D		BR-201		BR-202		
Sample Date	CAS#		11/22/2022	Q	11/21/2022	Q	11/22/2022	Q	11/21/2022	Q	11/21/2022	Q	
		(µg/L)											
Aroclor-1016	12674-11-2	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1221	11104-28-2	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1232	11141-16-5	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1242	53469-21-9	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1248	12672-29-6	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1254	11097-69-1	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1260	11096-82-5	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1262	37324-23-5	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Aroclor-1268	11100-14-4	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	
Total PCBs	1336-36-3	0.5	0.21	U	0.2	U	0.2	U	0.21	U	0.2	U	

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
RPD - Relative Percent Difference

Table C-8
PCBs Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
Aroclor-1016	12674-11-2	0.5	0.19	U
Aroclor-1221	11104-28-2	0.5	0.19	U
Aroclor-1232	11141-16-5	0.5	0.19	U
Aroclor-1242	53469-21-9	0.5	0.19	U
Aroclor-1248	12672-29-6	0.5	0.19	U
Aroclor-1254	11097-69-1	0.5	0.19	U
Aroclor-1260	11096-82-5	0.5	0.19	U
Aroclor-1262	37324-23-5	0.5	0.19	U
Aroclor-1268	11100-14-4	0.5	0.19	U
Total PCBs	1336-36-3	0.5	0.19	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-9
PCBs Analytical Results - Public Water Supply

Sample ID		MCL	PMCWS Well	
Sample Date	CAS#		11/22/2022	Q
		(µg/L)		
Aroclor-1016	12674-11-2	0.5	0.2	U
Aroclor-1221	11104-28-2	0.5	0.2	U
Aroclor-1232	11141-16-5	0.5	0.2	U
Aroclor-1242	53469-21-9	0.5	0.2	U
Aroclor-1248	12672-29-6	0.5	0.2	U
Aroclor-1254	11097-69-1	0.5	0.2	U
Aroclor-1260	11096-82-5	0.5	0.2	U
Aroclor-1262	37324-23-5	0.5	0.2	U
Aroclor-1268	11100-14-4	0.5	0.2	U
Total PCBs	1336-36-3	0.5	0.2	U

Key:
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-10
SVOCs Analytical Results - Groundwater

SampleID		VGES	BR-1		BR-2		BR-2-FD		BR-201		BR-202		RPD
Sample Date	CAS#		11/22/2022	Q	11/22/2022	Q	11/22/2022	Q	11/21/2022	Q	11/21/2022	Q	%
		(µg/L)											
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	10	U	10	U	10	U	10	U	10	U	-
1,2,4-Trichlorobenzene	120-82-1	70	5	U	5	U	5.1	U	5.1	U	5.1	U	-
1,2-Dichlorobenzene	95-50-1	600	5	U	5	U	5.1	U	5.1	U	5.1	U	-
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	10	U	10	U	10	U	10	U	10	U	-
1,3-Dichlorobenzene	541-73-1	600	5	U	5	U	5.1	U	5.1	U	5.1	U	-
1,4-Dichlorobenzene	106-46-7	75	5	U	5	U	5.1	U	5.1	U	5.1	U	-
1,4-Dioxane	123-91-1	0.3	0.2	U	0.2	U	0.2	U	0.21	U	0.21	U	-
1-Methylnaphthalene	90-12-0	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
2,4,5-Trichlorophenol	95-95-4	NE	10	U	10	U	10	U	10	U	10	U	-
2,4,6-Trichlorophenol	88-06-2	NE	10	U	10	U	10	U	10	U	10	U	-
2,4-Dichlorophenol	120-83-2	NE	10	U	10	U	10	U	10	U	10	U	-
2,4-Dimethylphenol	105-67-9	NE	10	U	10	U	10	U	10	U	10	U	-
2,4-Dinitrophenol	51-28-5	NE	10	U	10	U	10	U	10	U	10	U	-
2,4-Dinitrotoluene	121-14-2	NE	10	U	10	U	10	U	10	U	10	U	-
2,6-Dinitrotoluene	606-20-2	NE	10	U	10	U	10	U	10	U	10	U	-
2-Chloronaphthalene	91-58-7	NE	10	U	10	U	10	U	10	U	10	U	-
2-Chlorophenol	95-57-8	NE	10	U	10	U	10	U	10	U	10	U	-
2-Methylnaphthalene	91-57-6	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
2-Methylphenol	95-48-7	NE	10	U	10	U	10	U	10	U	10	U	-
2-Nitroaniline	88-74-4	NE	10	U	10	U	10	U	10	U	10	U	-
2-Nitrophenol	88-75-5	NE	10	U	10	U	10	U	10	U	10	U	-
3,3-Dichlorobenzidine	91-94-1	NE	10	U	10	U	10	U	10	U	10	U	-
3/4-Methylphenol	108-39-4/106-44-5	NE	10	U	10	U	10	U	10	U	10	U	-
3-Nitroaniline	99-09-2	NE	10	U	10	U	10	U	10	U	10	U	-
4,6-Dinitro-2-methylphenol	534-52-1	NE	10	U	10	U	10	U	10	U	10	U	-
4-Bromophenylphenylether	101-55-3	NE	10	U	10	U	10	U	10	U	10	U	-
4-Chloro-3-methylphenol	59-50-7	NE	10	U	10	U	10	U	10	U	10	U	-
4-Chloroaniline	106-47-8	NE	10	U	10	U	10	U	10	U	10	U	-
4-Chlorophenylphenylether	7005-72-3	NE	10	U	10	U	10	U	10	U	10	U	-
4-Nitroaniline	100-01-6	NE	10	U	10	U	10	U	10	U	10	U	-
4-Nitrophenol	100-02-7	NE	10	U	10	U	10	U	10	U	10	U	-
Acenaphthene	83-32-9	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Acenaphthylene	208-96-8	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Acetophenone	98-86-2	NE	10	U	10	U	10	U	10	U	10	U	-
Aniline	62-53-3	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Anthracene	120-12-7	343	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Benzidine	92-87-5	NE	20	U	20	U	20	U	20	U	20	U	-
Benzo(a)anthracene	56-55-3	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-

Key:
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Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
RPD - Relative Percent Difference

Table C-10
SVOCs Analytical Results - Groundwater

SampleID		VGES	BR-1		BR-2		BR-2-FD		BR-201		BR-202		RPD
Sample Date	**CAS#**		**11/22/2022**	**Q**	**11/22/2022**	**Q**	**11/22/2022**	**Q**	**11/21/2022**	**Q**	**11/21/2022**	**Q**	**%**
		(µg/L)											
Benzo(a)pyrene	50-32-8	0.2	0.57	U*	0.57	U*	0.57	U*	0.58	U*	0.57	U*	-
Benzo(b)fluoranthene	205-99-2	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Benzo(g,h,i)perylene	191-24-2	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Benzo(k)fluoranthene	207-08-9	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Benzoic Acid	65-85-0	NE	10	U	10	U	10	U	10	U	10	U	-
Bis(2-chloroethoxy)methane	111-91-1	NE	10	U	10	U	10	U	10	U	10	U	-
Bis(2-chloroethyl)ether	111-44-4	NE	10	U	10	U	10	U	10	U	10	U	-
Bis(2-chloroisopropyl)ether	108-60-1	46	10	U	10	U	10	U	10	U	10	U	-
Bis(2-Ethylhexyl)phthalate	117-81-7	6	0.84	U*	0.84	U*	0.85	U*	0.86	U*	0.85	U*	-
Butylbenzylphthalate	85-68-7	NE	10	U	10	U	10	U	10	U	10	U	-
Carbazole	86-74-8	NE	10	U	10	U	10	U	10	U	10	U	-
Chrysene	218-01-9	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Dibenz(a,h)anthracene	53-70-3	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Dibenzofuran	132-64-9	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Diethylphthalate	84-66-2	NE	10	U	10	U	10	U	10	U	10	U	-
Dimethylphthalate	131-11-3	NE	10	U	10	U	10	U	10	U	10	U	-
Di-n-butylphthalate	84-74-2	NE	10	U	10	U	10	U	10	U	10	U	-
Di-n-octylphthalate	117-84-0	NE	10	U	10	U	10	U	10	U	10	U	-
Fluoranthene	206-44-0	46	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Fluorene	86-73-7	46	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Hexachlorobenzene	118-74-1	1	0.51	U*	0.51	U*	0.51	U*	0.52	U*	0.51	U*	-
Hexachlorobutadiene	87-68-3	NE	10	U	10	U	10	U	10	U	10	U	-
Hexachlorocyclopentadiene	77-47-4	NE	10	U	10	U	10	U	10	U	10	U	-
Hexachloroethane	67-72-1	NE	10	U	10	U	10	U	10	U	10	U	-
Indeno(1,2,3-cd)pyrene	193-39-5	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Isophorone	78-59-1	NE	10	U	10	U	10	U	10	U	10	U	-
Naphthalene	91-20-3	0.5	0.62	U*	0.61	U*	0.62	U*	0.63	U*	0.62	U*	-
Nitrobenzene	98-95-3	NE	10	U	10	U	10	U	10	U	10	U	-
N-Nitrosodimethylamine	62-75-9	NE	10	U	10	U	10	U	10	U	10	U	-
N-Nitrosodi-n-propylamine	621-64-7	NE	10	U	10	U	10	U	10	U	10	U	-
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	10	U	10	U	10	U	10	U	10	U	-
Pentachloronitrobenzene	82-68-8	NE	10	U	10	U	10	U	10	U	10	U	-
Pentachlorophenol	87-86-5	1	3.5	U*	3.5	U*	3.5	U*	3.6	U*	3.5	U*	-
Phenanthrene	85-01-8	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Phenol	108-95-2	NE	10	U	10	U	10	U	10	U	10	U	-
Pyrene	129-00-0	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-
Pyridine	110-86-1	NE	5	U	5	U	5.1	U	5.1	U	5.1	U	-

Key:
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Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
RPD - Relative Percent Difference

Table C-10
SVOCs Analytical Results - Groundwater

Sample ID		VGES	MW-1		MW-2		MW-101D				MW-101D-FD		RPD
Sample Date	CAS#		12/14/2022	Q	11/21/2022	Q	11/22/2022	Q	4/25/2023	Q	4/25/2023	Q	%
		(µg/L)											
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	11	U	10	U	10	U	NS		NS		-
1,2,4-Trichlorobenzene	120-82-1	70	5.4	U	5.1	U	5	U	NS		NS		-
1,2-Dichlorobenzene	95-50-1	600	5.4	U	5.1	U	5	U	NS		NS		-
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	11	U	10	U	10	U	NS		NS		-
1,3-Dichlorobenzene	541-73-1	600	5.4	U	5.1	U	5	U	NS		NS		-
1,4-Dichlorobenzene	106-46-7	75	5.4	U	5.1	U	5	U	NS		NS		-
1,4-Dioxane	123-91-1	0.3	0.21	U	0.2	U	**2.6**		**2.3**		**2.3**		**0%**
1-Methylnaphthalene	90-12-0	NE	5.4	U	5.1	U	5	U	NS		NS		-
2,4,5-Trichlorophenol	95-95-4	NE	11	U	10	U	10	U	NS		NS		-
2,4,6-Trichlorophenol	88-06-2	NE	11	U	10	U	10	U	NS		NS		-
2,4-Dichlorophenol	120-83-2	NE	11	U	10	U	10	U	NS		NS		-
2,4-Dimethylphenol	105-67-9	NE	11	U	10	U	10	U	NS		NS		-
2,4-Dinitrophenol	51-28-5	NE	11	U	10	U	10	U	NS		NS		-
2,4-Dinitrotoluene	121-14-2	NE	11	U	10	U	10	U	NS		NS		-
2,6-Dinitrotoluene	606-20-2	NE	11	U	10	U	10	U	NS		NS		-
2-Chloronaphthalene	91-58-7	NE	11	U	10	U	10	U	NS		NS		-
2-Chlorophenol	95-57-8	NE	11	U	10	U	10	U	NS		NS		-
2-Methylnaphthalene	91-57-6	NE	5.4	U	5.1	U	5	U	NS		NS		-
2-Methylphenol	95-48-7	NE	11	U	10	U	10	U	NS		NS		-
2-Nitroaniline	88-74-4	NE	11	U	10	U	10	U	NS		NS		-
2-Nitrophenol	88-75-5	NE	11	U	10	U	10	U	NS		NS		-
3,3-Dichlorobenzidine	91-94-1	NE	11	U	10	U	10	U	NS		NS		-
3/4-Methylphenol	108-39-4/106-44-5	NE	11	U	10	U	10	U	NS		NS		-
3-Nitroaniline	99-09-2	NE	11	U	10	U	10	U	NS		NS		-
4,6-Dinitro-2-methylphenol	534-52-1	NE	11	U	10	U	10	U	NS		NS		-
4-Bromophenylphenylether	101-55-3	NE	11	U	10	U	10	U	NS		NS		-
4-Chloro-3-methylphenol	59-50-7	NE	11	U	10	U	10	U	NS		NS		-
4-Chloroaniline	106-47-8	NE	11	U	10	U	10	U	NS		NS		-
4-Chlorophenylphenylether	7005-72-3	NE	11	U	10	U	10	U	NS		NS		-
4-Nitroaniline	100-01-6	NE	11	U	10	U	10	U	NS		NS		-
4-Nitrophenol	100-02-7	NE	11	U	10	U	10	U	NS		NS		-
Acenaphthene	83-32-9	NE	5.4	U	5.1	U	5	U	NS		NS		-
Acenaphthylene	208-96-8	NE	5.4	U	5.1	U	5	U	NS		NS		-
Acetophenone	98-86-2	NE	11	U	10	U	10	U	NS		NS		-
Aniline	62-53-3	NE	5.4	U	5.1	U	5	U	NS		NS		-
Anthracene	120-12-7	343	5.4	U	5.1	U	5	U	NS		NS		-
Benzidine	92-87-5	NE	22	U	20	U	20	U	NS		NS		-
Benzo(a)anthracene	56-55-3	NE	5.4	U	5.1	U	5	U	NS		NS		-

Key:
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µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
RPD - Relative Percent Difference
NS - Sample not analyzed for compound

Table C-10
SVOCs Analytical Results - Groundwater

Sample ID		VGES	MW-1		MW-2		MW-101D				MW-101D-FD		RPD
Sample Date	CAS#		12/14/2022	Q	11/21/2022	Q	11/22/2022	Q	4/25/2023	Q	4/25/2023	Q	%
		(µg/L)											
Benzo(a)pyrene	50-32-8	0.2	0.61	U*	0.57	U*	0.57	U*	NS		NS		-
Benzo(b)fluoranthene	205-99-2	NE	5.4	U	5.1	U	5	U	NS		NS		-
Benzo(g,h,i)perylene	191-24-2	NE	5.4	U	5.1	U	5	U	NS		NS		-
Benzo(k)fluoranthene	207-08-9	NE	5.4	U	5.1	U	5	U	NS		NS		-
Benzoic Acid	65-85-0	NE	11	U	10	U	10	U	NS		NS		-
Bis(2-chloroethoxy)methane	111-91-1	NE	11	U	10	U	10	U	NS		NS		-
Bis(2-chloroethyl)ether	111-44-4	NE	11	U	10	U	10	U	NS		NS		-
Bis(2-chloroisopropyl)ether	108-60-1	46	11	U	10	U	10	U	NS		NS		-
Bis(2-Ethylhexyl)phthalate	117-81-7	6	0.9	U*	0.85	U*	0.84	U*	NS		NS		-
Butylbenzylphthalate	85-68-7	NE	11	U	10	U	10	U	NS		NS		-
Carbazole	86-74-8	NE	11	U	10	U	10	U	NS		NS		-
Chrysene	218-01-9	NE	5.4	U	5.1	U	5	U	NS		NS		-
Dibenz(a,h)anthracene	53-70-3	NE	5.4	U	5.1	U	5	U	NS		NS		-
Dibenzofuran	132-64-9	NE	5.4	U	5.1	U	5	U	NS		NS		-
Diethylphthalate	84-66-2	NE	11	U	10	U	10	U	NS		NS		-
Dimethylphthalate	131-11-3	NE	11	U	10	U	10	U	NS		NS		-
Di-n-butylphthalate	84-74-2	NE	11	U	10	U	10	U	NS		NS		-
Di-n-octylphthalate	117-84-0	NE	11	U	10	U	10	U	NS		NS		-
Fluoranthene	206-44-0	46	5.4	U	5.1	U	5	U	NS		NS		-
Fluorene	86-73-7	46	5.4	U	5.1	U	5	U	NS		NS		-
Hexachlorobenzene	118-74-1	1	0.54	U*	0.51	U*	0.51	U*	NS		NS		-
Hexachlorobutadiene	87-68-3	NE	11	U	10	U	10	U	NS		NS		-
Hexachlorocyclopentadiene	77-47-4	NE	11	U	10	U	10	U	NS		NS		-
Hexachloroethane	67-72-1	NE	11	U	10	U	10	U	NS		NS		-
Indeno(1,2,3-cd)pyrene	193-39-5	NE	5.4	U	5.1	U	5	U	NS		NS		-
Isophorone	78-59-1	NE	11	U	10	U	10	U	NS		NS		-
Naphthalene	91-20-3	0.5	0.66	U*	0.62	U*	0.62	U*	NS		NS		-
Nitrobenzene	98-95-3	NE	11	U	10	U	10	U	NS		NS		-
N-Nitrosodimethylamine	62-75-9	NE	11	U	10	U	10	U	NS		NS		-
N-Nitrosodi-n-propylamine	621-64-7	NE	11	U	10	U	10	U	NS		NS		-
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	11	U	10	U	10	U	NS		NS		-
Pentachloronitrobenzene	82-68-8	NE	11	U	10	U	10	U	NS		NS		-
Pentachlorophenol	87-86-5	1	3.8	U*	3.5	U*	3.5	U*	NS		NS		-
Phenanthrene	85-01-8	NE	5.4	U	5.1	U	5	U	NS		NS		-
Phenol	108-95-2	NE	11	U	10	U	10	U	NS		NS		-
Pyrene	129-00-0	NE	5.4	U	5.1	U	5	U	NS		NS		-
Pyridine	110-86-1	NE	5.4	U	5.1	U	5	U	NS		NS		-

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
RPD - Relative Percent Difference
NS - Sample not analyzed for compound

Table C-10
SVOCs Analytical Results - Groundwater

Sample ID		VGES	BR-3				BR-4	
Sample Date	CAS#		11/22/2022	Q	4/26/2023	Q	11/21/2022	Q
		(µg/L)						
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	10	U	NS		10	U
1,2,4-Trichlorobenzene	120-82-1	70	5	U	NS		5.1	U
1,2-Dichlorobenzene	95-50-1	600	5	U	NS		5.1	U
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	10	U	NS		10	U
1,3-Dichlorobenzene	541-73-1	600	5	U	NS		5.1	U
1,4-Dichlorobenzene	106-46-7	75	5	U	NS		5.1	U
1,4-Dioxane	123-91-1	0.3	**2.0**		**0.63**		0.21	U
1-Methylnaphthalene	90-12-0	NE	5	U	NS		5.1	U
2,4,5-Trichlorophenol	95-95-4	NE	10	U	NS		10	U
2,4,6-Trichlorophenol	88-06-2	NE	10	U	NS		10	U
2,4-Dichlorophenol	120-83-2	NE	10	U	NS		10	U
2,4-Dimethylphenol	105-67-9	NE	10	U	NS		10	U
2,4-Dinitrophenol	51-28-5	NE	10	U	NS		10	U
2,4-Dinitrotoluene	121-14-2	NE	10	U	NS		10	U
2,6-Dinitrotoluene	606-20-2	NE	10	U	NS		10	U
2-Chloronaphthalene	91-58-7	NE	10	U	NS		10	U
2-Chlorophenol	95-57-8	NE	10	U	NS		10	U
2-Methylnaphthalene	91-57-6	NE	5	U	NS		5.1	U
2-Methylphenol	95-48-7	NE	10	U	NS		10	U
2-Nitroaniline	88-74-4	NE	10	U	NS		10	U
2-Nitrophenol	88-75-5	NE	10	U	NS		10	U
3,3-Dichlorobenzidine	91-94-1	NE	10	U	NS		10	U
3/4-Methylphenol	108-39-4/106-44-5	NE	10	U	NS		10	U
3-Nitroaniline	99-09-2	NE	10	U	NS		10	U
4,6-Dinitro-2-methylphenol	534-52-1	NE	10	U	NS		10	U
4-Bromophenylphenylether	101-55-3	NE	10	U	NS		10	U
4-Chloro-3-methylphenol	59-50-7	NE	10	U	NS		10	U
4-Chloroaniline	106-47-8	NE	10	U	NS		10	U
4-Chlorophenylphenylether	7005-72-3	NE	10	U	NS		10	U
4-Nitroaniline	100-01-6	NE	10	U	NS		10	U
4-Nitrophenol	100-02-7	NE	10	U	NS		10	U
Acenaphthene	83-32-9	NE	5	U	NS		5.1	U
Acenaphthylene	208-96-8	NE	5	U	NS		5.1	U
Acetophenone	98-86-2	NE	10	U	NS		10	U
Aniline	62-53-3	NE	5	U	NS		5.1	U
Anthracene	120-12-7	343	5	U	NS		5.1	U
Benzidine	92-87-5	NE	20	U	NS		20	U
Benzo(a)anthracene	56-55-3	NE	5	U	NS		5.1	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
NS - Sample not analyzed for compound

Table C-10
SVOCs Analytical Results - Groundwater

Sample ID		VGES	BR-3				BR-4	
Sample Date	CAS#		11/22/2022	Q	4/26/2023		11/21/2022	Q
		(µg/L)						
Benzo(a)pyrene	50-32-8	0.2	0.57	U*	NS		0.57	U*
Benzo(b)fluoranthene	205-99-2	NE	5	U	NS		5.1	U
Benzo(g,h,i)perylene	191-24-2	NE	5	U	NS		5.1	U
Benzo(k)fluoranthene	207-08-9	NE	5	U	NS		5.1	U
Benzoic Acid	65-85-0	NE	10	U	NS		10	U
Bis(2-chloroethoxy)methane	111-91-1	NE	10	U	NS		10	U
Bis(2-chloroethyl)ether	111-44-4	NE	10	U	NS		10	U
Bis(2-chloroisopropyl)ether	108-60-1	46	10	U	NS		10	U
Bis(2-Ethylhexyl)phthalate	117-81-7	6	0.84	U*	NS		0.85	U*
Butylbenzylphthalate	85-68-7	NE	10	U	NS		10	U
Carbazole	86-74-8	NE	10	U	NS		10	U
Chrysene	218-01-9	NE	5	U	NS		5.1	U
Dibenz(a,h)anthracene	53-70-3	NE	5	U	NS		5.1	U
Dibenzofuran	132-64-9	NE	5	U	NS		5.1	U
Diethylphthalate	84-66-2	NE	10	U	NS		10	U
Dimethylphthalate	131-11-3	NE	10	U	NS		10	U
Di-n-butylphthalate	84-74-2	NE	10	U	NS		10	U
Di-n-octylphthalate	117-84-0	NE	10	U	NS		10	U
Fluoranthene	206-44-0	46	5	U	NS		5.1	U
Fluorene	86-73-7	46	5	U	NS		5.1	U
Hexachlorobenzene	118-74-1	1	0.51	U*	NS		0.51	U*
Hexachlorobutadiene	87-68-3	NE	10	U	NS		10	U
Hexachlorocyclopentadiene	77-47-4	NE	10	U	NS		10	U
Hexachloroethane	67-72-1	NE	10	U	NS		10	U
Indeno(1,2,3-cd)pyrene	193-39-5	NE	5	U	NS		5.1	U
Isophorone	78-59-1	NE	10	U	NS		10	U
Naphthalene	91-20-3	0.5	0.61	U*	NS		0.62	U*
Nitrobenzene	98-95-3	NE	10	U	NS		10	U
N-Nitrosodimethylamine	62-75-9	NE	10	U	NS		10	U
N-Nitrosodi-n-propylamine	621-64-7	NE	10	U	NS		10	U
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	10	U	NS		10	U
Pentachloronitrobenzene	82-68-8	NE	10	U	NS		10	U
Pentachlorophenol	87-86-5	1	3.5	U*	NS		3.5	U*
Phenanthrene	85-01-8	NE	5	U	NS		5.1	U
Phenol	108-95-2	NE	10	U	NS		10	U
Pyrene	129-00-0	NE	5	U	NS		5.1	U
Pyridine	110-86-1	NE	5	U	NS		5.1	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established

Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
NS - Sample not analyzed for compound

Table C-11
SVOCs Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	9.7	U
1,2,4-Trichlorobenzene	120-82-1	70	4.8	U
1,2-Dichlorobenzene	95-50-1	600	4.8	U
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	9.7	U
1,3-Dichlorobenzene	541-73-1	600	4.8	U
1,4-Dichlorobenzene	106-46-7	75	4.8	U
1,4-Dioxane	123-91-1	0.3	0.19	U
1-Methylnaphthalene	90-12-0	NE	4.8	U
2,4,5-Trichlorophenol	95-95-4	NE	9.7	U
2,4,6-Trichlorophenol	88-06-2	NE	9.7	U
2,4-Dichlorophenol	120-83-2	NE	9.7	U
2,4-Dimethylphenol	105-67-9	NE	9.7	U
2,4-Dinitrophenol	51-28-5	NE	9.7	U
2,4-Dinitrotoluene	121-14-2	NE	9.7	U
2,6-Dinitrotoluene	606-20-2	NE	9.7	U
2-Chloronaphthalene	91-58-7	NE	9.7	U
2-Chlorophenol	95-57-8	NE	9.7	U
2-Methylnaphthalene	91-57-6	NE	4.8	U
2-Methylphenol	95-48-7	NE	9.7	U
2-Nitroaniline	88-74-4	NE	9.7	U
2-Nitrophenol	88-75-5	NE	9.7	U
3,3-Dichlorobenzidine	91-94-1	NE	9.7	U
3/4-Methylphenol	108-39-4/106-4	NE	9.7	U
3-Nitroaniline	99-09-2	NE	9.7	U
4,6-Dinitro-2-methylphenol	534-52-1	NE	9.7	U
4-Bromophenylphenylether	101-55-3	NE	9.7	U
4-Chloro-3-methylphenol	59-50-7	NE	9.7	U
4-Chloroaniline	106-47-8	NE	9.7	U
4-Chlorophenylphenylether	7005-72-3	NE	9.7	U
4-Nitroaniline	100-01-6	NE	9.7	U
4-Nitrophenol	100-02-7	NE	9.7	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established

Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-11
SVOCs Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
Acenaphthene	83-32-9	NE	4.8	U
Acenaphthylene	208-96-8	NE	4.8	U
Acetophenone	98-86-2	NE	9.7	U
Aniline	62-53-3	NE	4.8	U
Anthracene	120-12-7	343	4.8	U
Benzidine	92-87-5	NE	19	U
Benzo(a)anthracene	56-55-3	NE	4.8	U
Benzo(a)pyrene	50-32-8	0.2	0.55	U*
Benzo(b)fluoranthene	205-99-2	NE	4.8	U
Benzo(g,h,i)perylene	191-24-2	NE	4.8	U
Benzo(k)fluoranthene	207-08-9	NE	4.8	U
Benzoic Acid	65-85-0	NE	9.7	U
Bis(2-chloroethoxy)methane	111-91-1	NE	9.7	U
Bis(2-chloroethyl)ether	111-44-4	NE	9.7	U
Bis(2-chloroisopropyl)ether	108-60-1	46	9.7	U
Bis(2-Ethylhexyl)phthalate	117-81-7	6	0.81	U*
Butylbenzylphthalate	85-68-7	NE	9.7	U
Carbazole	86-74-8	NE	9.7	U
Chrysene	218-01-9	NE	4.8	U
Dibenz(a,h)anthracene	53-70-3	NE	4.8	U
Dibenzofuran	132-64-9	NE	4.8	U
Diethylphthalate	84-66-2	NE	9.7	U
Dimethylphthalate	131-11-3	NE	9.7	U
Di-n-butylphthalate	84-74-2	NE	9.7	U
Di-n-octylphthalate	117-84-0	NE	9.7	U
Fluoranthene	206-44-0	46	4.8	U
Fluorene	86-73-7	46	4.8	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-11
SVOCs Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
Hexachlorobenzene	118-74-1	1	0.49	U*
Hexachlorobutadiene	87-68-3	NE	9.7	U
Hexachlorocyclopentadiene	77-47-4	NE	9.7	U
Hexachloroethane	67-72-1	NE	9.7	U
Indeno(1,2,3-cd)pyrene	193-39-5	NE	4.8	U
Isophorone	78-59-1	NE	9.7	U
Naphthalene	91-20-3	0.5	0.59	U*
Nitrobenzene	98-95-3	NE	9.7	U
N-Nitrosodimethylamine	62-75-9	NE	9.7	U
N-Nitrosodi-n-propylamine	621-64-7	NE	9.7	U
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	9.7	U
Pentachloronitrobenzene	82-68-8	NE	9.7	U
Pentachlorophenol	87-86-5	1	3.4	U*
Phenanthrene	85-01-8	NE	4.8	U
Phenol	108-95-2	NE	9.7	U
Pyrene	129-00-0	NE	4.8	U
Pyridine	110-86-1	NE	4.8	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-12
SVOCs Analytical Results - Public Water Supply

Sample ID		MCL	PMCWS Well		FORMER SUPPLY WELL	
Sample Date	CAS#		11/22/2022	Q	4/26/2023	Q
		(µg/L)				
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	10	U	NS	
1,2,4-Trichlorobenzene	120-82-1	70	5	U	NS	
1,2-Dichlorobenzene	95-50-1	600	5	U	NS	
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	10	U	NS	
1,3-Dichlorobenzene	541-73-1	600	5	U	NS	
1,4-Dichlorobenzene	106-46-7	75	5	U	NS	
1,4-Dioxane	123-91-1	0.3	0.2	U	0.2	U
1-Methylnaphthalene	90-12-0	NE	5	U	NS	
2,4,5-Trichlorophenol	95-95-4	NE	10	U	NS	
2,4,6-Trichlorophenol	88-06-2	NE	10	U	NS	
2,4-Dichlorophenol	120-83-2	NE	10	U	NS	
2,4-Dimethylphenol	105-67-9	NE	10	U	NS	
2,4-Dinitrophenol	51-28-5	NE	10	U	NS	
2,4-Dinitrotoluene	121-14-2	NE	10	U	NS	
2,6-Dinitrotoluene	606-20-2	NE	10	U	NS	
2-Chloronaphthalene	91-58-7	NE	10	U	NS	
2-Chlorophenol	95-57-8	NE	10	U	NS	
2-Methylnaphthalene	91-57-6	NE	5	U	NS	
2-Methylphenol	95-48-7	NE	10	U	NS	
2-Nitroaniline	88-74-4	NE	10	U	NS	
2-Nitrophenol	88-75-5	NE	10	U	NS	
3,3-Dichlorobenzidine	91-94-1	NE	10	U	NS	
3/4-Methylphenol	108-39-4/106-4	NE	10	U	NS	
3-Nitroaniline	99-09-2	NE	10	U	NS	
4,6-Dinitro-2-methylphenol	534-52-1	NE	10	U	NS	
4-Bromophenylphenylether	101-55-3	NE	10	U	NS	
4-Chloro-3-methylphenol	59-50-7	NE	10	U	NS	
4-Chloroaniline	106-47-8	NE	10	U	NS	
4-Chlorophenylphenylether	7005-72-3	NE	10	U	NS	
4-Nitroaniline	100-01-6	NE	10	U	NS	
4-Nitrophenol	100-02-7	NE	10	U	NS	
Acenaphthene	83-32-9	NE	5	U	NS	
Acenaphthylene	208-96-8	NE	5	U	NS	
Acetophenone	98-86-2	NE	10	U	NS	
Aniline	62-53-3	NE	5	U	NS	
Anthracene	120-12-7	343	5	U	NS	
Benzidine	92-87-5	NE	20	U	NS	
Benzo(a)anthracene	56-55-3	NE	5	U	NS	
Benzo(a)pyrene	50-32-8	0.2	0.57	U*	NS	

Key:
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established

Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-12
SVOCs Analytical Results - Public Water Supply

Sample ID		MCL	PMCWS Well		FORMER SUPPLY WELL	
Sample Date	CAS#		11/22/2022	Q	4/26/2023	Q
		(µg/L)				
Benzo(b)fluoranthene	205-99-2	NE	5	U	NS	
Benzo(g,h,i)perylene	191-24-2	NE	5	U	NS	
Benzo(k)fluoranthene	207-08-9	NE	5	U	NS	
Benzoic Acid	65-85-0	NE	10	U	NS	
Bis(2-chloroethoxy)methane	111-91-1	NE	10	U	NS	
Bis(2-chloroethyl)ether	111-44-4	NE	10	U	NS	
Bis(2-chloroisopropyl)ether	108-60-1	46	10	U	NS	
Bis(2-Ethylhexyl)phthalate	117-81-7	6	0.84	U*	NS	
Butylbenzylphthalate	85-68-7	NE	10	U	NS	
Carbazole	86-74-8	NE	10	U	NS	
Chrysene	218-01-9	NE	5	U	NS	
Dibenz(a,h)anthracene	53-70-3	NE	5	U	NS	
Dibenzofuran	132-64-9	NE	5	U	NS	
Diethylphthalate	84-66-2	NE	10	U	NS	
Dimethylphthalate	131-11-3	NE	10	U	NS	
Di-n-butylphthalate	84-74-2	NE	10	U	NS	
Di-n-octylphthalate	117-84-0	NE	10	U	NS	
Fluoranthene	206-44-0	46	5	U	NS	
Fluorene	86-73-7	46	5	U	NS	
Hexachlorobenzene	118-74-1	1	0.51	U*	NS	
Hexachlorobutadiene	87-68-3	NE	10	U	NS	
Hexachlorocyclopentadiene	77-47-4	NE	10	U	NS	
Hexachloroethane	67-72-1	NE	10	U	NS	
Indeno(1,2,3-cd)pyrene	193-39-5	NE	5	U	NS	
Isophorone	78-59-1	NE	10	U	NS	
Naphthalene	91-20-3	0.5	0.61	U*	NS	
Nitrobenzene	98-95-3	NE	10	U	NS	
N-Nitrosodimethylamine	62-75-9	NE	10	U	NS	
N-Nitrosodi-n-propylamine	621-64-7	NE	10	U	NS	
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	10	U	NS	
Pentachloronitrobenzene	82-68-8	NE	10	U	NS	
Pentachlorophenol	87-86-5	1	3.5	U*	NS	
Phenanthrene	85-01-8	NE	5	U	NS	
Phenol	108-95-2	NE	10	U	NS	
Pyrene	129-00-0	NE	5	U	NS	
Pyridine	110-86-1	NE	5	U	NS	

Key:
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-13
VOCs Analytical Results - Groundwater

SampleID		VGES	MW-1		BR-1		BR-2		BR-2-FD		BR-201		BR-202		RPD
Sample Date	CAS#		12/14/2022	Q	11/22/2022	Q	11/22/2022	Q	11/22/2022	Q	11/21/2022	Q	11/21/2022	Q	%
		(µg/L)													
1,1,1,2-Tetrachloroethane	630-20-6	70	1	U	1	U	1	U	1	U	1	U	1	U	-
1,1,1-Trichloroethane	71-55-6	200	1	U	1	U	1	U	1	U	1	U	1	U	-
1,1,2,2-Tetrachloroethane	79-34-5	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
1,1,2-Trichloroethane	79-00-5	5	1	U	1	U	1	U	1	U	1	U	1	U	-
1,1-Dichloroethane	75-34-3	70	1	U	1	U	1	U	1	U	1	U	1	U	-
1,1-Dichloroethylene	75-35-4	7	1	U	1	U	1	U	1	U	1	U	1	U	-
1,1-Dichloropropene	563-58-6	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
1,2,3-Trichlorobenzene	87-61-6	0.9	0.3	U*	0.3	U*	0.3	U*	0.3	U*	0.3	U*	0.3	U*	-
1,2,3-Trichloropropane	96-18-4	0.02	0.28	U*	0.28	U*	0.28	U*	0.28	U*	0.28	U*	0.28	U*	-
1,2,4-Trichlorobenzene	120-82-1	70	1	U	1	U	1	U	1	U	1	U	1	U	-
1,2,4-Trimethylbenzene	95-63-6	23	1	U	1	U	1	U	1	U	1	U	1	U	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	0.8	U*	0.8	U*	0.8	U*	0.8	U*	0.8	U*	0.8	U*	-
1,2-Dibromoethane (EDB)	106-93-4	0.05	0.17	U*	0.17	U*	0.17	U*	0.17	U*	0.17	U*	0.17	U*	-
1,2-Dichlorobenzene	95-50-1	600	1	U	1	U	1	U	1	U	1	U	1	U	-
1,2-Dichloroethane	107-06-2	5	1	U	1	U	1	U	1	U	1	U	1	U	-
1,2-Dichloropropane	78-87-5	5	1	U	1	U	1	U	1	U	1	U	1	U	-
1,3,5-Trichlorobenzene	108-70-3	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
1,3,5-Trimethylbenzene	108-67-8	23	1	U	1	U	1	U	1	U	1	U	1	U	-
1,3-Dichlorobenzene	541-73-1	600	1	U	1	U	1	U	1	U	1	U	1	U	-
1,3-Dichloropropane	142-28-9	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
1,4-Dichlorobenzene	106-46-7	75	1	U	1	U	1	U	1	U	1	U	1	U	-
1,4-Dioxane	123-91-1	0.3	21	U*	21	U*	21	U*	21	U*	21	U*	21	U*	-
2,2-Dichloropropane	594-20-7	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
2-Butanone (MEK)	78-93-3	511	20	U	20	U	20	U	20	U	20	U	20	U	-
2-Chlorotoluene	95-49-8	100	1	U	1	U	1	U	1	U	1	U	1	U	-
2-Hexanone (MBK)	591-78-6	NE	10	U	10	U	10	U	10	U	10	U	10	U	-
4-Chlorotoluene	106-43-4	100	1	U	1	U	1	U	1	U	1	U	1	U	-
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	10	U	10	U	10	U	10	U	10	U	10	U	-
Acetone	67-64-1	950	50	U	50	U	50	U	50	U	**2.8**	J	50	U	-
Acrylonitrile	107-13-1	NE	5	U	5	U	5	U	5	U	5	U	5	U	-
Benzene	71-43-2	5	1	U	1	U	1	U	1	U	1	U	1	U	-
Bromobenzene	108-86-1	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Bromochloromethane	74-97-5	8	1	U	1	U	1	U	1	U	1	U	1	U	-
Bromodichloromethane	75-27-4	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-

Key:
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NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
RPD - Relative Percent Difference
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated

Table C-13
VOCs Analytical Results - Groundwater

SampleID		VGES	MW-1		BR-1		BR-2		BR-2-FD		BR-201		BR-202		RPD
Sample Date	CAS#		12/14/2022	Q	11/22/2022	Q	11/22/2022	Q	11/22/2022	Q	11/21/2022	Q	11/21/2022	Q	%
		(µg/L)													
Bromoform	75-25-2	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Bromomethane	74-83-9	5	2	U	2	U	2	U	2	U	2	U	2	U	-
Carbon Disulfide	75-15-0	NE	5	U	5	U	5	U	5	U	5	U	5	U	-
Carbon Tetrachloride	56-23-5	5	0.16	U*	0.16	U*	0.16	U*	0.16	U*	0.16	U*	0.16	U*	-
Chlorobenzene	108-90-7	100	1	U	1	U	1	U	1	U	1	U	1	U	-
Chlorodibromomethane	124-48-1	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
Chloroethane	75-00-3	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
Chloroform	67-66-3	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
Chloromethane	74-87-3	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
cis-1,2-Dichloroethylene	156-59-2	70	1	U	1	U	1	U	1	U	1	U	1	U	-
cis-1,3-Dichloropropene	10061-01-5	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
Dibromomethane	74-95-3	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
Diethyl Ether	60-29-7	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
Diisopropyl Ether (DIPE)	108-20-3	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
Ethylbenzene	100-41-4	700	1	U	1	U	1	U	1	U	1	U	1	U	-
Hexachlorobutadiene	87-68-3	NE	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	-
Isopropylbenzene (Cumene)	98-82-8	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
m+p Xylene	108383/106423	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
Methyl Acetate	79-20-9	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Methyl Cyclohexane	108-87-2	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	1	U	1	U	1	U	1	U	1	U	1	U	-
Methylene Chloride	75-09-2	5	0.23	U*	0.23	U*	0.23	U*	0.23	U*	0.23	U*	0.23	U*	-
Naphthalene	91-20-3	0.5	0.24	U*	0.24	U*	0.24	U*	0.24	U*	0.24	U*	0.24	U*	-
n-Butylbenzene	104-51-8	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
n-Propylbenzene	103-65-1	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
o-Xylene	95-47-6	10000	1	U	1	U	1	U	1	U	1	U	1	U	-
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
sec-Butylbenzene	135-98-8	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Styrene	100-42-5	100	1	U	1	U	1	U	1	U	1	U	1	U	-
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
tert-Butyl Alcohol (TBA)	75-65-0	NE	20	U	20	U	20	U	20	U	20	U	20	U	-
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
tert-Butylbenzene	98-06-6	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Tetrachloroethylene	127-18-4	5	1	U	1	U	1	U	1	U	1	U	1	U	-

Key:
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J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated

Table C-13
VOCs Analytical Results - Groundwater

SampleID		VGES	MW-1		BR-1		BR-2		BR-2-FD		BR-201		BR-202		RPD
Sample Date	**CAS#**		**12/14/2022**	**Q**	**11/22/2022**	**Q**	**11/22/2022**	**Q**	**11/22/2022**	**Q**	**11/21/2022**	**Q**	**11/21/2022**	**Q**	**%**
		(µg/L)													
Tetrahydrofuran	109-99-9	NE	10	U	10	U	10	U	10	U	10	U	10	U	-
Toluene	108-88-3	1000	1	U	1	U	1	U	1	U	1	U	1	U	-
Total Trimethylbenzene	25551-13-7	NE	1	U	1	U	1	U	1	U	1	U	1	U	-
Total Xylene	1330-20-7	10000	2	U	2	U	2	U	2	U	2	U	2	U	-
trans-1,2-Dichloroethylene	156-60-5	100	1	U	1	U	1	U	1	U	1	U	1	U	-
trans-1,3-Dichloropropene	10061-02-6	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	-
trans-1,4-Dichloro-2-butene	110-57-6	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
Trichloroethylene	79-01-6	5	1	U	1	U	1	U	1	U	1	U	1	U	-
Trichlorofluoromethane (Freon 11)	75-69-4	NE	2	U	2	U	2	U	2	U	2	U	2	U	-
Vinyl Chloride	75-01-4	2	0.21	U*	0.21	U*	0.21	U*	0.21	U*	0.21	U*	0.21	U*	-

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Table C-13
VOCs Analytical Results - Groundwater

Sample ID		VGES	BR-3		BR-4		MW-101D		MW-2		Trip Blank		Trip Blank	
Sample Date	CAS#		11/22/2022	Q	11/21/2022	Q	11/22/2022	Q	11/21/2022	Q	11/23/2022	Q	12/14/2022	Q
		(µg/L)												
1,1,1,2-Tetrachloroethane	630-20-6	70	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	71-55-6	200	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	79-34-5	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	79-00-5	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	75-34-3	70	**0.23**	J	1	U	**1.6**		1	U	1	U	1	U
1,1-Dichloroethylene	75-35-4	7	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	563-58-6	NE	2	U	2	U	2	U	2	U	2	U	2	U
1,2,3-Trichlorobenzene	87-61-6	0.9	0.3	U*	0.3	U*	0.3	U*	0.3	U*	0.3	U*	0.3	U*
1,2,3-Trichloropropane	96-18-4	0.02	0.28	U*	0.28	U*	0.28	U*	0.28	U*	0.28	U*	0.28	U*
1,2,4-Trichlorobenzene	120-82-1	70	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	95-63-6	23	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	0.8	U*	0.8	U*	0.8	U*	0.8	U*	0.8	U*	0.8	U*
1,2-Dibromoethane (EDB)	106-93-4	0.05	0.17	U*	0.17	U*	0.17	U*	0.17	U*	0.17	U*	0.17	U*
1,2-Dichlorobenzene	95-50-1	600	1	U	1	U	**0.25**	J	1	U	1	U	1	U
1,2-Dichloroethane	107-06-2	5	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	78-87-5	5	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trichlorobenzene	108-70-3	NE	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	108-67-8	23	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	541-73-1	600	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	142-28-9	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	75	**0.49**	J	1	U	**2.9**		1	U	1	U	1	U
1,4-Dioxane	123-91-1	0.3	21	U*	21	U*	21	U*	21	U*	21	U*	21	U*
2,2-Dichloropropane	594-20-7	NE	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone (MEK)	78-93-3	511	20	U	20	U	20	U	20	U	20	U	20	U
2-Chlorotoluene	95-49-8	100	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone (MBK)	591-78-6	NE	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	106-43-4	100	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	67-64-1	950	**2.7**	J	50	U	50	U	50	U	50	U	50	U
Acrylonitrile	107-13-1	NE	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	5	**0.21**	J	1	U	**1**		1	U	1	U	1	U
Bromobenzene	108-86-1	NE	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	74-97-5	8	1	U	1	U	1	U	1	U	1	U	1	U

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Table C-13
VOCs Analytical Results - Groundwater

Sample ID		VGES	BR-3		BR-4		MW-101D		MW-2		Trip Blank		Trip Blank	
Sample Date	CAS#		11/22/2022	Q	11/21/2022	Q	11/22/2022	Q	11/21/2022	Q	11/23/2022	Q	12/14/2022	Q
		(µg/L)												
Bromodichloromethane	75-27-4	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	NE	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	74-83-9	5	2	U	2	U	2	U	2	U	2	U	2	U
Carbon Disulfide	75-15-0	NE	5	U	5	U	5	U	5	U	5	U	5	U
Carbon Tetrachloride	56-23-5	5	0.16	U*	0.16	U*	0.16	U*	0.16	U*	0.16	U*	0.16	U*
Chlorobenzene	108-90-7	100	**0.27**	J	1	U	**1.7**		1	U	1	U	1	U
Chlorodibromomethane	124-48-1	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	NE	2	U	2	U	2	U	2	U	2	U	2	U
Chloroform	67-66-3	NE	2	U	2	U	2	U	2	U	7.7		2	U
Chloromethane	74-87-3	NE	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethylene	156-59-2	70	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	10061-01-5	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	74-95-3	NE	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2	U	2	U	**0.25**	J	2	U	2	U	2	U
Diethyl Ether	60-29-7	NE	**3.8**		2	U	**18**		2	U	2	U	2	U
Diisopropyl Ether (DIPE)	108-20-3	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	700	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	87-68-3	NE	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Isopropylbenzene (Cumene)	98-82-8	NE	1	U	1	U	**0.18**	J	1	U	1	U	1	U
m+p Xylene	108383/106423	NE	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Acetate	79-20-9	NE	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Cyclohexane	108-87-2	NE	1	U	1	U	1	U	1	U	1	U	1	U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	**0.27**	J	1	U	**1.5**		1	U	1	U	1	U
Methylene Chloride	75-09-2	5	0.23	U*	0.23	U*	0.23	U*	0.23	U*	0.23	U*	0.23	U*
Naphthalene	91-20-3	0.5	0.24	U*	0.24	U*	**0.32**	J	0.24	U*	0.24	U*	0.24	U*
n-Butylbenzene	104-51-8	NE	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	103-65-1	NE	1	U	1	U	1	U	1	U	1	U	1	U
o-Xylene	95-47-6	10000	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1	U	1	U	1	U	1	U	1	U	1	U
sec-Butylbenzene	135-98-8	NE	1	U	1	U	**0.23**	J	1	U	1	U	1	U
Styrene	100-42-5	100	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butyl Alcohol (TBA)	75-65-0	NE	20	U	20	U	20	U	20	U	20	U	20	U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	98-06-6	NE	1	U	1	U	1	U	1	U	1	U	1	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
RPD - Relative Percent Difference
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated

Table C-13
VOCs Analytical Results - Groundwater

Sample ID		VGES	BR-3		BR-4		MW-101D		MW-2		Trip Blank		Trip Blank	
Sample Date	CAS#		11/22/2022	Q	11/21/2022	Q	11/22/2022	Q	11/21/2022	Q	11/23/2022	Q	12/14/2022	Q
		(µg/L)												
Tetrachloroethylene	127-18-4	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	109-99-9	NE	**1.4**	J	**3.7**	J	10	U	10	U	10	U	10	U
Toluene	108-88-3	1000	**0.46**	J	1	U	1	U	1	U	1	U	1	U
Total Trimethylbenzene	25551-13-7	NE	1	U	1	U	1	U	1	U	1	U	1	U
Total Xylene	1330-20-7	10000	2	U	2	U	2	U	2	U	2	U	2	U
trans-1,2-Dichloroethylene	156-60-5	100	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	10061-02-6	NE	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,4-Dichloro-2-butene	110-57-6	NE	2	U	2	U	2	U	2	U	2	U	2	U
Trichloroethylene	79-01-6	5	1	U	**0.21**	J	1	U	1	U	1	U	1	U
Trichlorofluoromethane (Freon 11)	75-69-4	NE	2	U	2	U	2	U	2	U	2	U	2	U
Vinyl Chloride	75-01-4	2	0.21	U*	0.21	U*	0.21	U*	0.21	U*	0.21	U*	0.21	U*

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.
RPD - Relative Percent Difference
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated

Table C-14
VOCs Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
1,1,1,2-Tetrachloroethane	630-20-6	70	1	U
1,1,1-Trichloroethane	71-55-6	200	1	U
1,1,2,2-Tetrachloroethane	79-34-5	NE	0.5	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1	U
1,1,2-Trichloroethane	79-00-5	5	1	U
1,1-Dichloroethane	75-34-3	70	1	U
1,1-Dichloroethylene	75-35-4	7	1	U
1,1-Dichloropropene	563-58-6	NE	2	U
1,2,3-Trichlorobenzene	87-61-6	0.9	0.3	U*
1,2,3-Trichloropropane	96-18-4	0.02	0.28	U*
1,2,4-Trichlorobenzene	120-82-1	70	1	U
1,2,4-Trimethylbenzene	95-63-6	23	1	U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	0.8	U*
1,2-Dibromoethane (EDB)	106-93-4	0.05	0.17	U*
1,2-Dichlorobenzene	95-50-1	600	1	U
1,2-Dichloroethane	107-06-2	5	1	U
1,2-Dichloropropane	78-87-5	5	1	U
1,3,5-Trichlorobenzene	108-70-3	NE	1	U
1,3,5-Trimethylbenzene	108-67-8	23	1	U
1,3-Dichlorobenzene	541-73-1	600	1	U
1,3-Dichloropropane	142-28-9	NE	0.5	U
1,4-Dichlorobenzene	106-46-7	75	1	U
1,4-Dioxane	123-91-1	0.3	21	U*
2,2-Dichloropropane	594-20-7	NE	1	U
2-Butanone (MEK)	78-93-3	511	20	U
2-Chlorotoluene	95-49-8	100	1	U
2-Hexanone (MBK)	591-78-6	NE	10	U
4-Chlorotoluene	106-43-4	100	1	U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	10	U
Acetone	67-64-1	950	50	U
Acrylonitrile	107-13-1	NE	5	U
Benzene	71-43-2	5	1	U
Bromobenzene	108-86-1	NE	1	U
Bromochloromethane	74-97-5	8	1	U
Bromodichloromethane	75-27-4	NE	0.5	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established

Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-14
VOCs Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
Bromoform	75-25-2	NE	1	U
Bromomethane	74-83-9	5	2	U
Carbon Disulfide	75-15-0	NE	5	U
Carbon Tetrachloride	56-23-5	5	0.16	U*
Chlorobenzene	108-90-7	100	1	U
Chlorodibromomethane	124-48-1	NE	0.5	U
Chloroethane	75-00-3	NE	2	U
Chloroform	67-66-3	NE	2	U
Chloromethane	74-87-3	NE	2	U
cis-1,2-Dichloroethylene	156-59-2	70	1	U
cis-1,3-Dichloropropene	10061-01-5	NE	0.5	U
Dibromomethane	74-95-3	NE	1	U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2	U
Diethyl Ether	60-29-7	NE	2	U
Diisopropyl Ether (DIPE)	108-20-3	NE	0.5	U
Ethylbenzene	100-41-4	700	1	U
Hexachlorobutadiene	87-68-3	NE	0.6	U
Isopropylbenzene (Cumene)	98-82-8	NE	1	U
m+p Xylene	108383/106423	NE	2	U
Methyl Acetate	79-20-9	NE	1	U
Methyl Cyclohexane	108-87-2	NE	1	U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	1	U
Methylene Chloride	75-09-2	5	0.23	U*

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-14
VOCs Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
Naphthalene	91-20-3	0.5	0.24	U*
n-Butylbenzene	104-51-8	NE	1	U
n-Propylbenzene	103-65-1	NE	1	U
o-Xylene	95-47-6	10000	1	U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1	U
sec-Butylbenzene	135-98-8	NE	1	U
Styrene	100-42-5	100	1	U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.5	U
tert-Butyl Alcohol (TBA)	75-65-0	NE	20	U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	0.5	U
tert-Butylbenzene	98-06-6	NE	1	U
Tetrachloroethylene	127-18-4	5	1	U
Tetrahydrofuran	109-99-9	NE	10	U
Toluene	108-88-3	1000	1	U
Total Trimethylbenzene	25551-13-7	NE	1	U
Total Xylene	1330-20-7	10000	2	U
trans-1,2-Dichloroethylene	156-60-5	100	1	U
trans-1,3-Dichloropropene	10061-02-6	NE	0.5	U
trans-1,4-Dichloro-2-butene	110-57-6	NE	2	U
Trichloroethylene	79-01-6	5	1	U
Trichlorofluoromethane (Freon 11)	75-69-4	NE	2	U
Vinyl Chloride	75-01-4	2	0.21	U*

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-15
VOCs Analytical Results - Public Water Supply

Sample ID		MCL	PMCWS Well	
Sample Date	CAS#		11/22/2022	Q
		(µg/L)		
1,1,1,2-Tetrachloroethane	630-20-6	70	1	U
1,1,1-Trichloroethane	71-55-6	200	1	U
1,1,2,2-Tetrachloroethane	79-34-5	NE	0.5	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1	U
1,1,2-Trichloroethane	79-00-5	5	1	U
1,1-Dichloroethane	75-34-3	70	1	U
1,1-Dichloroethylene	75-35-4	7	1	U
1,1-Dichloropropene	563-58-6	NE	2	U
1,2,3-Trichlorobenzene	87-61-6	0.9	0.3	U*
1,2,3-Trichloropropane	96-18-4	0.02	0.28	U*
1,2,4-Trichlorobenzene	120-82-1	70	1	U
1,2,4-Trimethylbenzene	95-63-6	23	1	U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	0.8	U*
1,2-Dibromoethane (EDB)	106-93-4	0.05	0.17	U*
1,2-Dichlorobenzene	95-50-1	600	1	U
1,2-Dichloroethane	107-06-2	5	1	U
1,2-Dichloropropane	78-87-5	5	1	U
1,3,5-Trichlorobenzene	108-70-3	NE	1	U
1,3,5-Trimethylbenzene	108-67-8	23	1	U
1,3-Dichlorobenzene	541-73-1	600	1	U
1,3-Dichloropropane	142-28-9	NE	0.5	U
1,4-Dichlorobenzene	106-46-7	75	1	U
1,4-Dioxane	123-91-1	0.3	21	U*
2,2-Dichloropropane	594-20-7	NE	1	U
2-Butanone (MEK)	78-93-3	511	20	U
2-Chlorotoluene	95-49-8	100	1	U
2-Hexanone (MBK)	591-78-6	NE	10	U
4-Chlorotoluene	106-43-4	100	1	U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	10	U
Acetone	67-64-1	950	50	U
Acrylonitrile	107-13-1	NE	5	U
Benzene	71-43-2	5	1	U
Bromobenzene	108-86-1	NE	1	U
Bromochloromethane	74-97-5	8	1	U

Key:
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

* - Analyte reported to the method detection limit.

Table C-15
VOCs Analytical Results - Public Water Supply

Sample ID		MCL	PMCWS Well	
Sample Date	CAS#		11/22/2022	Q
		(µg/L)		
Bromodichloromethane	75-27-4	NE	0.5	U
Bromoform	75-25-2	NE	1	U
Bromomethane	74-83-9	5	2	U
Carbon Disulfide	75-15-0	NE	5	U
Carbon Tetrachloride	56-23-5	5	0.16	U*
Chlorobenzene	108-90-7	100	1	U
Chlorodibromomethane	124-48-1	NE	0.5	U
Chloroethane	75-00-3	NE	2	U
Chloroform	67-66-3	NE	2	U
Chloromethane	74-87-3	NE	2	U
cis-1,2-Dichloroethylene	156-59-2	70	1	U
cis-1,3-Dichloropropene	10061-01-5	NE	0.5	U
Dibromomethane	74-95-3	NE	1	U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2	U
Diethyl Ether	60-29-7	NE	2	U
Diisopropyl Ether (DIPE)	108-20-3	NE	0.5	U
Ethylbenzene	100-41-4	700	1	U
Hexachlorobutadiene	87-68-3	NE	0.6	U
Isopropylbenzene (Cumene)	98-82-8	NE	1	U
m+p Xylene	108383/106423	NE	2	U
Methyl Acetate	79-20-9	NE	1	U
Methyl Cyclohexane	108-87-2	NE	1	U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	1	U
Methylene Chloride	75-09-2	5	0.23	U*
Naphthalene	91-20-3	0.5	0.24	U*
n-Butylbenzene	104-51-8	NE	1	U
n-Propylbenzene	103-65-1	NE	1	U

Key:
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-15
VOCs Analytical Results - Public Water Supply

Sample ID		MCL	PMCWS Well	
Sample Date	CAS#		11/22/2022	Q
		(µg/L)		
o-Xylene	95-47-6	10000	1	U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1	U
sec-Butylbenzene	135-98-8	NE	1	U
Styrene	100-42-5	100	1	U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.5	U
tert-Butyl Alcohol (TBA)	75-65-0	NE	20	U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	0.5	U
tert-Butylbenzene	98-06-6	NE	1	U
Tetrachloroethylene	127-18-4	5	1	U
Tetrahydrofuran	109-99-9	NE	10	U
Toluene	108-88-3	1000	1	U
Total Trimethylbenzene	25551-13-7	NE	1	U
Total Xylene	1330-20-7	10000	2	U
trans-1,2-Dichloroethylene	156-60-5	100	1	U
trans-1,3-Dichloropropene	10061-02-6	NE	0.5	U
trans-1,4-Dichloro-2-butene	110-57-6	NE	2	U
Trichloroethylene	79-01-6	5	1	U
Trichlorofluoromethane (Freon 11)	75-69-4	NE	2	U
Vinyl Chloride	75-01-4	2	0.21	U*

Key:
MCL - Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
* - Analyte reported to the method detection limit.

Table C-16
WET CHEMISTRY Analytical Results - Groundwater

SampleID		VGES	MW-1		BR-1		BR-2		BR-2-FD		BR-201		RPD
Sample Date	**CAS#**		**12/14/2022**	**Q**	**11/22/2022**	**Q**	**11/22/2022**	**Q**	**11/22/2022**	**Q**	**11/21/2022**	**Q**	**%**
		(µg/L)											
Chloride	16887-00-6	NE	**3700**		**1200**		1000	U	1000	U	1000	U	**-**
Chemical Oxygen Demand	COD	NE	15000	U	15000	U	15000	U	15000	U	15000	U	**-**

Sample ID		VGES	BR-202		BR-3		BR-4		MW-101D		MW-2	
Sample Date	**CAS#**		**11/21/2022**	**Q**	**11/22/2022**	**Q**	**11/21/2022**	**Q**	**11/22/2022**	**Q**	**11/21/2022**	**Q**
		(µg/L)										
Chloride	16887-00-6	NE	1000	U	**350000**		**2500**		**11000**		1000	U
Chemical Oxygen Demand	COD	NE	15000	U	15000	U	15000	U	15000	U	15000	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
RPD - Relative Percent Difference

Table C-17
WET CHEMISTRY Analytical Results - Private Drinking Water

Sample ID		VGES/VHA	Leibon Well	
Sample Date	CAS#		11/21/2022	Q
		(µg/L)		
Chloride	16887-00-6	NE	**43000**	
Chemical Oxygen Demand	COD	NE	15000	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
VHA - Vermont Health Advisory - Vermont DOH Drinking Water Guidance, May 3, 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-18
WET CHEMISTRY Analytical Results - Public Water Supply

Sample ID		SMCL	PMCWS Well	
Sample Date	CAS#		11/22/2022	Q
		(µg/L)		
Chloride	16887-00-6	250000	**1200000**	
Chemical Oxygen Demand	COD	NE	15000	U

Key:
SMCL - Secondary Maximum Contaminant Level - Vermont Water Supply Rule, March 17, 2020
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-19
DIOXINS/FURANS Analytical Results - Groundwater

SampleID		VGES	MW-1		BR-1		MW-101D		MW-101D-FD		BR-2		RPD
Sample Date	CAS#		12/14/2022	Q	4/25/2023	Q	4/25/2023	Q	4/25/2023	Q	4/25/2023	Q	%
		(µg/L)											
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	3.0E-06	U	0.0000043	U	0.0000044	U	0.0000043	U	0.0000044	U	-
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	1.6E-06	U	0.0000043	U	0.0000045	U	0.0000043	U	0.0000044	U	-
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	4.9E-06	U	0.0000043	U	0.0000044	U	0.0000043	U	0.0000048	UA	-
1,2,3,4,7,8-HxCDD	39227-28-6	NE	**2.4E-06**	JB	0.0000036	U	0.0000037	U	0.0000036	U	0.0000037	U	-
1,2,3,4,7,8-HxCDF	70648-26-9	NE	7.4E-07	U	0.000005	U	0.0000052	U	0.000005	U	0.0000051	U	-
1,2,3,6,7,8-HxCDD	57653-85-7	NE	1.3E-06	U	0.0000045	U	0.0000047	U	0.0000045	U	0.0000046	U	-
1,2,3,6,7,8-HxCDF	57117-44-9	NE	8.0E-07	U	0.0000044	U	0.0000046	U	0.0000044	U	0.0000045	U	-
1,2,3,7,8,9-HxCDD	19408-74-3	NE	1.1E-06	U	0.0000055	U	0.0000057	U	0.0000055	U	0.0000055	U	-
1,2,3,7,8,9-HxCDF	72918-21-9	NE	3.2E-06	U	0.0000046	U	0.0000048	U	0.0000046	U	0.0000047	U	-
1,2,3,7,8-PeCDD	40321-76-4	NE	1.3E-06	U	0.0000021	U	0.0000022	U	0.0000021	U	0.0000021	U	-
1,2,3,7,8-PeCDF	57117-41-6	NE	1.1E-06	U	0.0000025	U	0.0000026	U	0.0000025	U	0.0000025	U	-
2,3,4,6,7,8-HxCDF	60851-34-5	NE	1.0E-06	U	0.0000043	U	0.0000045	U	0.0000043	U	0.0000044	U	-
2,3,4,7,8-PeCDF	57117-31-4	NE	6.8E-07	U	0.0000019	U	0.0000019	U	0.0000019	U	**0.0000023**	J	-
2,3,7,8-TCDD	1746-01-6	0.00003	1.7E-06	U	0.0000022	U	0.0000023	U	0.0000022	U	0.0000022	U	-
2,3,7,8-TCDF	51207-31-9	NE	1.2E-06	U	0.000002	U	0.0000021	U	0.000002	U	0.0000021	U	-
OCDD	3268-87-9	NE	1.0E-05	U	0.000011	U	0.000012	U	0.000011	U	0.000011	U	-
OCDF	39001-02-0	NE	8.3E-06	U	0.00001	U	0.000011	U	0.00001	U	0.00001	U	-
Total HpCDD	37871-00-4	NE	3.0E-06	U	0.0000043	U	0.0000044	U	0.0000043	U	0.0000044	U	-
Total HpCDF	38998-75-3	NE	1.60E-06	U	0.0000043	U	0.0000044	U	0.0000043	U	0.0000044	U	-
Total HxCDD	34465-46-8	NE	**2.4E-06**	JB	0.0000036	U	0.0000037	U	0.0000036	U	0.0000037	U	-
Total HxCDF	55684-94-1	NE	7.4E-07	U	0.0000043	U	0.0000045	U	0.0000043	U	0.0000044	U	-
Total PeCDD	36088-22-9	NE	1.3E-06	U	0.0000021	U	0.0000022	U	0.0000021	U	0.0000021	U	-
Total PeCDF	30402-15-4	NE	6.8E-07	U	0.0000019	U	0.0000019	U	0.0000019	U	**0.0000023**	J	-
Total TCDD	41903-57-5	NE	1.7E-06	U	0.0000022	U	0.0000023	U	0.0000022	U	0.0000022	U	-
Total TCDF	30402-14-3	NE	1.2E-06	U	0.000002	U	0.0000021	U	0.000002	U	0.0000021	U	-

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated
B - Less than 10x higher than method blank level
A - Reporting Limit based on signal to noise (EDL)
RPD - Relative Percent Difference

Table C-19
DIOXINS/FURANS Analytical Results - Groundwater

Sample ID		VGES	BR-202		BR-201		MW-2		BR-4		BR-3	
Sample Date	CAS#		4/25/2023	Q	4/25/2023	Q	4/25/2023	Q	4/26/2023	Q	4/26/2023	Q
		(µg/L)										
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	0.0000044	U	0.0000044	U	0.0000044	U	0.0000043	U	0.0000043	U
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	0.0000044	U	0.0000044	U	0.0000044	U	0.0000044	U	0.0000043	U
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	0.0000043	U	0.0000044	U	0.0000044	U	0.0000043	U	0.0000042	U
1,2,3,4,7,8-HxCDD	39227-28-6	NE	0.0000037	U	0.0000037	U	0.0000037	U	0.0000036	U	0.0000036	U
1,2,3,4,7,8-HxCDF	70648-26-9	NE	0.0000051	U	0.0000051	U	0.0000051	U	0.0000051	U	0.000005	U
1,2,3,6,7,8-HxCDD	57653-85-7	NE	0.0000046	U	0.0000046	U	0.0000046	U	0.0000046	U	0.0000045	U
1,2,3,6,7,8-HxCDF	57117-44-9	NE	0.0000045	U	0.0000045	U	0.0000045	U	0.0000045	U	0.0000044	U
1,2,3,7,8,9-HxCDD	19408-74-3	NE	0.0000055	U	0.0000056	U	0.0000056	U	0.0000055	U	0.0000054	U
1,2,3,7,8,9-HxCDF	72918-21-9	NE	0.0000047	U	0.0000047	U	0.0000047	U	0.0000047	U	0.0000046	U
1,2,3,7,8-PeCDD	40321-76-4	NE	0.0000021	U	0.0000021	U J	0.0000021	U	0.0000021	U	0.0000021	U
1,2,3,7,8-PeCDF	57117-41-6	NE	0.0000026	U	0.0000026	U	0.0000026	U	0.0000025	U	0.0000025	U
2,3,4,6,7,8-HxCDF	60851-34-5	NE	0.0000044	U	0.0000044	U	0.0000044	U	0.0000043	U	0.0000043	U
2,3,4,7,8-PeCDF	57117-31-4	NE	0.0000019	U	**0.000002**	J	0.0000019	U	0.0000019	U	0.0000018	U
2,3,7,8-TCDD	1746-01-6	0.00003	0.0000022	U	0.0000023	U	0.0000023	U	0.0000022	U	0.0000022	U
2,3,7,8-TCDF	51207-31-9	NE	0.0000021	U	0.0000021	U	0.0000021	U	0.0000021	U	0.000002	U
OCDD	3268-87-9	NE	0.000011	U	0.000011	U	0.000011	U	0.000011	U	0.000011	U
OCDF	39001-02-0	NE	0.00001	U	0.000011	U	0.000011	U	0.00001	U	0.00001	U
Total HpCDD	37871-00-4	NE	0.0000044	U	0.0000044	U	0.0000044	U	0.0000043	U	0.0000043	U
Total HpCDF	38998-75-3	NE	0.0000043	U	0.0000044	U	0.0000044	U	0.0000043	U	0.0000042	U
Total HxCDD	34465-46-8	NE	0.0000037	U	0.0000037	U	0.0000037	U	0.0000036	U	0.0000036	U
Total HxCDF	55684-94-1	NE	0.0000044	U	0.0000044	U	0.0000044	U	0.0000043	U	0.0000043	U
Total PeCDD	36088-22-9	NE	0.0000021	U	0.0000021	U	0.0000021	U	0.0000021	U	0.0000021	U
Total PeCDF	30402-15-4	NE	0.0000019	U	**0.000002**	J	0.0000019	U	0.0000019	U	0.0000018	U
Total TCDD	41903-57-5	NE	0.0000022	U	0.0000023	U	0.0000023	U	0.0000022	U	0.0000022	U
Total TCDF	30402-14-3	NE	0.0000021	U	**0.0000027**	J	0.0000021	U	0.0000021	U	0.000002	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated
B - Less than 10x higher than method blank level
A - Reporting Limit based on signal to noise (EDL)

Table C-20
DIOXINS/FURANS Analytical Results - Private Drinking Water

SampleID		VGES	LIEBON WELL	
Sample Date	CAS#		4/25/2023	Q
		(µg/L)		
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	0.0000044	U
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	0.0000044	U
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	0.0000044	U
1,2,3,4,7,8-HxCDD	39227-28-6	NE	0.0000037	U
1,2,3,4,7,8-HxCDF	70648-26-9	NE	0.0000052	U
1,2,3,6,7,8-HxCDD	57653-85-7	NE	0.0000046	U
1,2,3,6,7,8-HxCDF	57117-44-9	NE	0.0000045	U
1,2,3,7,8,9-HxCDD	19408-74-3	NE	0.0000056	U
1,2,3,7,8,9-HxCDF	72918-21-9	NE	0.0000048	U
1,2,3,7,8-PeCDD	40321-76-4	NE	0.0000021	U
1,2,3,7,8-PeCDF	57117-41-6	NE	0.0000026	U
2,3,4,6,7,8-HxCDF	60851-34-5	NE	0.0000044	U
2,3,4,7,8-PeCDF	57117-31-4	NE	0.0000019	U
2,3,7,8-TCDD	1746-01-6	0.00003	0.0000023	U
2,3,7,8-TCDF	51207-31-9	NE	0.0000021	U
OCDD	3268-87-9	NE	0.000011	U
OCDF	39001-02-0	NE	0.000011	U
Total HpCDD	37871-00-4	NE	0.0000044	U
Total HpCDF	38998-75-3	NE	0.0000044	U
Total HxCDD	34465-46-8	NE	0.0000037	U
Total HxCDF	55684-94-1	NE	0.0000044	U
Total PeCDD	36088-22-9	NE	0.0000021	U
Total PeCDF	30402-15-4	NE	0.0000019	U
Total TCDD	41903-57-5	NE	0.0000023	U
Total TCDF	30402-14-3	NE	0.0000021	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-21
Public Water Supply Dioxins/Furans Sample Analytical Results

Sample ID		VGES	PMCWS		FORMER SUPPLY WELL	
Sample Date	CAS#		4/25/2023	Q	4/26/2023	Q
		(µg/L)				
1,2,3,4,6,7,8-HpCDD	35822-46-9	NE	0.0000045	U	0.0000043	U
1,2,3,4,6,7,8-HpCDF	67562-39-4	NE	0.0000045	U	0.0000044	U
1,2,3,4,7,8,9-HpCDF	55673-89-7	NE	0.0000044	U	0.0000043	U
1,2,3,4,7,8-HxCDD	39227-28-6	NE	0.0000038	U	0.0000036	U
1,2,3,4,7,8-HxCDF	70648-26-9	NE	0.0000052	U	0.0000051	U
1,2,3,6,7,8-HxCDD	57653-85-7	NE	0.0000047	U	0.0000045	U
1,2,3,6,7,8-HxCDF	57117-44-9	NE	0.0000046	U	0.0000044	U
1,2,3,7,8,9-HxCDD	19408-74-3	NE	0.0000057	U	0.0000055	U
1,2,3,7,8,9-HxCDF	72918-21-9	NE	0.0000048	U	0.0000047	U
1,2,3,7,8-PeCDD	40321-76-4	NE	0.0000022	U	0.0000021	U
1,2,3,7,8-PeCDF	57117-41-6	NE	0.0000026	U	0.0000025	U
2,3,4,6,7,8-HxCDF	60851-34-5	NE	0.0000045	U	0.0000043	U
2,3,4,7,8-PeCDF	57117-31-4	NE	0.0000019	U	0.0000019	U
2,3,7,8-TCDD	1746-01-6	0.00003	0.0000023	U	0.0000022	U
2,3,7,8-TCDF	51207-31-9	NE	0.0000021	U	0.000002	U
OCDD	3268-87-9	NE	0.000012	U	0.000011	U
OCDF	39001-02-0	NE	0.000011	U	0.00001	U
Total HpCDD	37871-00-4	NE	0.0000045	U	0.0000043	U
Total HpCDF	38998-75-3	NE	0.0000044	U	0.0000043	U
Total HxCDD	34465-46-8	NE	0.0000038	U	0.0000036	U
Total HxCDF	55684-94-1	NE	0.0000045	U	0.0000043	U
Total PeCDD	36088-22-9	NE	0.0000022	U	0.0000021	U
Total PeCDF	30402-15-4	NE	0.0000019	U	0.0000019	U
Total TCDD	41903-57-5	NE	0.0000023	U	0.0000022	U
Total TCDF	30402-14-3	NE	0.0000021	U	0.000002	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	BR-1		BR-1	
Sample Date	CAS#		10/14/2020	Q	11/22/2022	Q
		(ng/L)				
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	1.93	U	2.0	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	1.93	U	2.0	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	1.93	U	2.0	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	1.93	U	2.0	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	1.93	U	2.0	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	1.93	U	2.0	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	1.93	U	2.0	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	1.93	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	1.93	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	1.93	U	2.0	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	1.93	U	2.0	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	1.93	U	2.0	U
Perfluorononanoic acid (PFNA)	375-95-1	20	1.93	U	2.0	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	1.93	U	2.0	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	1.93	U	2.0	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	1.93	U	2.0	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	1.93	U	2.0	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	1.93	U	2.0	U
Total Regulated PFAS		20	1.93	U	2.0	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	BR-2		BR-2	
Sample Date	CAS#		10/14/2020	Q	11/22/2022	Q
		(ng/L)				
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	NA		1.9	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	2.03	U	1.9	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	NA		1.9	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	50.8	U	1.9	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	**3.80**		1.9	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	2.03	U	1.9	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	2.03	U	1.9	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	2.03	U	1.9	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	2.03	U	1.9	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	**4.75**		1.9	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	2.03	U	1.9	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	**12.6**		1.9	U
Perfluorononanoic acid (PFNA)	375-95-1	20	2.03	U	1.9	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	**6.31**		1.9	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	**9.01**		1.9	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	2.03	U	1.9	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	2.03	U	1.9	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	2.03	U	1.9	U
Total Regulated PFAS		20	**20.1**		1.9	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	UVRL BR3		BR-3		BR-3		BR-3	
Sample Date	CAS#		10/3/2018		10/14/2020	Q	11/22/2022	Q	4/25/2023	Q
		(ng/L)								
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	NA		NA		2.1	U	1.9	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	NA		1.79	U	2.1	U	1.9	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	NA		NA		2.1	U	1.9	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	NA		44.7	U	2.1	U	1.9	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	NA		1.79	U	2.1	U	1.9	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	NA		1.79	U	2.1	U	1.9	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	4.0	U	1.79	U	2.1	U	1.9	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	NA		1.79	U	2.1	U	1.9	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	NA		1.79	U	2.1	U	1.9	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	4.0	U	1.79	U	**3.6**		1.9	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	4.0	U	1.79	U	2.1	U	1.9	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	NA		**2.60**		**6.8**		1.9	U
Perfluorononanoic acid (PFNA)	375-95-1	20	4.0	U	1.79	U	2.1	U	1.9	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	4.0	U	1.79	U	2.1	U	1.9	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	**6.7**		**5.85**		**27**		**5.6**	
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	NA		1.79	U	2.1	U	1.9	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	NA		1.79	U	2.1	U	1.9	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	NA		1.79	U	2.1	U	1.9	U
Total Regulated PFAS		20	**6.7**		**5.85**		**31**		**5.6**	

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	BR-201		BR-201	
Sample Date	CAS#		10/14/2020	Q	11/21/2022	Q
		(ng/L)				
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	NA		1.9	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	2.53	U	1.9	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	NA		1.9	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	63.4	U	1.9	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	2.53	U	1.9	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	2.53	U	1.9	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	2.53	U	1.9	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	2.53	U	1.9	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	2.53	U	1.9	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	2.53	U	1.9	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	2.53	U	1.9	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	2.53	U	1.9	U
Perfluorononanoic acid (PFNA)	375-95-1	20	2.53	U	1.9	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	2.53	U	1.9	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	2.53	U	1.9	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	2.53	U	1.9	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	2.53	U	1.9	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	2.53	U	1.9	U
Total Regulated PFAS		20	2.53	U	1.9	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	BR-202		BR-202	
Sample Date	CAS#		10/14/2020	Q	11/21/2022	Q
		(ng/L)				
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	NA		2.0	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	2.10	U	2.0	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	NA		2.0	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	52.5	U	2.0	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	2.10	U	2.0	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	2.10	U	2.0	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	2.10	U	2.0	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	2.10	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	2.10	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	2.10	U	2.0	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	2.10	U	2.0	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	2.10	U	2.0	U
Perfluorononanoic acid (PFNA)	375-95-1	20	2.10	U	2.0	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	2.10	U	2.0	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	2.10	U	2.0	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	2.10	U	2.0	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	2.10	U	2.0	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	2.10	U	2.0	U
Total Regulated PFAS		20	2.10	U	2.0	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	MW-1		MW-1	
Sample Date	CAS#		10/14/2020	Q	12/16/2022	Q
		(ng/L)				
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	NA		2.0	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	1.88	U	2.0	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	NA		2.0	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	47.1	U	2.0	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	1.88	U	**3.6**	
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	1.88	U	2.0	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	1.88	U	2.0	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	1.88	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	1.88	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	1.88	U	2.0	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	1.88	U	2.0	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	1.88	U	2.0	U
Perfluorononanoic acid (PFNA)	375-95-1	20	1.88	U	2.0	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	**3.62**		2.0	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	**2.05**		2.0	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	1.88	U	2.0	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	1.88	U	2.0	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	1.88	U	2.0	U
Total Regulated PFAS		20	**5.67**		2.0	U

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	MW-2		MW-2	
Sample Date	CAS#		10/14/2020	Q	11/21/2022	Q
		(ng/L)				
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	NA		1.9	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	1.91	U	1.9	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	NA		1.9	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	47.8	U	1.9	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	1.91	U	1.9	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	1.91	U	1.9	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	1.91	U	1.9	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	1.91	U	1.9	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	1.91	U	1.9	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	1.91	U	1.9	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	1.91	U	1.9	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	1.91	U	1.9	U
Perfluorononanoic acid (PFNA)	375-95-1	20	1.91	U	1.9	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	1.91	U	**3.0**	
Perfluorooctanoic acid (PFOA)	335-67-1	20	1.91	U	1.9	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	1.91	U	1.9	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	1.91	U	1.9	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	1.91	U	1.9	U
Total Regulated PFAS		20	1.91	U	**3.0**	

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-22
PFAS Timeseries - Groundwater

SampleID		VGES	UVRL 101D		MW-101D		MW-101D		MW-101D		MW-101D-FD	
Sample Date	CAS#		10/8/2019		10/14/2020	Q	11/22/2022	Q	4/25/2023	Q	4/25/2023	Q
		(ng/L)										
11Cl-PF3OUdS (F53B Major)	763051-92-9	NE	NA		NA		2.1	U	2.0	U	2.0	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
9Cl-PF3ONS (F53B Minor)	756426-58-1	NE	NA		NA		2.1	U	2.0	U	2.0	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	NE	NA		52.6	U	2.1	U	2.0	U	2.0	U
N-EtFOSAA (NEtFOSAA)	2991-50-6	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
N-MeFOSAA (NMeFOSAA)	2355-31-9	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NE	4.0	U	2.10	U	2.1	U	2.0	U	2.0	U
Perfluorodecanoic acid (PFDA)	335-76-2	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	20	4.0	U	2.10	U	**3.5**		**4.9**		**6.0**	
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	20	4.0	U	2.10	U	**3.3**		**4.5**		**4.3**	
Perfluorohexanoic acid (PFHxA)	307-24-4	NE	NA		2.10	U	**5.9**		**4.8**		**4.3**	
Perfluorononanoic acid (PFNA)	375-95-1	20	4.0	U	2.10	U	2.1	U	2.0	U	2.0	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	20	**10**		2.10	U	2.1	U	2.0	U	2.0	U
Perfluorooctanoic acid (PFOA)	335-67-1	20	**11**		2.10	U	**9.2**		**10**		**9.7**	
Perfluorotetradecanoic acid (PFTA)	376-06-7	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NE	NA		2.10	U	2.1	U	2.0	U	2.0	U
Total Regulated PFAS		20	**21**		2.10	U	**16**		**19**		**20.0**	

Key:
Total Regulated PFAS - Cumulative sum of PFOA, PFOS, PFHxS, PFHpA, and PFNA
VGES - Vermont Groundwater Enforcement Standard, July 2019
ng/L - nanograms per liter (parts per trillion)
Bold results indicate detections of the analyte
NE - screening level not established
Shaded results indicate an exceedance of the residential enforcement standard(s)
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed
NA - Sample not analyzed for compound
Data prior to 2022 provided by VT DEC; table only includes target compounds from 2022/2023 rounds

Table C-23
METALS Analytical Results - Soil

Sample ID		VSS - Resident	VSS - Non-resident	EPA Residential RSL	EPA Industrial RSL	SB-1-0.5		SB-2-0.5		SB-3-0.5		SB-3-0.5-FD		SB-4-0.5		SB-5-0.5		RPD
Sample Date						**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	
	CAS#	**(mg/Kg)**	**(mg/Kg)**	**(mg/Kg)**	**(mg/Kg)**													
Antimony	7440-36-0	26	319	31	470	1.7	U	1.9	U	1.9	U	1.9	U	1.8	U	1.8	U	-
Arsenic	7440-38-2	16	16	0.68	3	3.5	U	3.8	U	3.8	U	3.8	U	3.5	U	3.5	U	-
Beryllium	7440-41-7	35	289	160	2300	**0.4**		**0.38**		**0.51**		**0.52**		**0.67**		**0.29**		2%
Cadmium	7440-43-9	6.9	87	NE	NE	0.35	U	0.38	U	0.38	U	0.38	U	0.35	U	0.35	U	-
Chromium	7440-47-3	NE	NE	NE	NE	**10**		**9.7**		**11**		**11**		**29**		**18**		-
Copper	7440-50-8	10407	139231	3100	47000	**5.9**		**6.7**		**5.7**		**5.6**		**14**		**13**		2%
Lead	7439-92-1	400	800	400	800	**15**		**8.3**		**8.9**		**9.5**		**7.7**		**4**		7%
Nickel	7440-02-0	940	9707	1500	22000	**6.9**		**6.6**		**7.7**		**8**		**20**		**15**		4%
Selenium	7782-49-2	366	4900	390	5800	3.5	U	3.8	U	3.8	U	3.8	U	3.5	U	3.5	U	-
Silver	7440-22-4	237	2483	390	5800	0.35	U	0.38	U	0.38	U	0.38	U	0.35	U	0.35	U	-
Thallium	7440-28-0	NE	NE	0.78	12	1.7	U	1.9	U	1.9	U	1.9	U	1.8	U	1.8	U	-
Zinc	7440-66-6	21986	294150	23000	350000	**20**		**19**		**37**		**39**		**29**		**160**		5%
Mercury	7439-97-6	3.1	3.1	11	46	**0.035**		**0.046**		**0.048**		**0.051**		**0.031**		0.027	U	6%

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, May 2023
Q - laboratory result qualifier
mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the residential enforcement standard(s)
Italicized results indicate and exceedance of the non-residential enforcement standard(s)
NE - screening level not established
U - Analyte not detected; limit of quantitation listed
RPD- Relative Percent Difference

Table C-24
SVOCs Analytical Results - Soil

Sample ID		VSS - Resident	VSS - Non-resident	EPA Residential RSL	EPA Industrial RSL	SB-1-0.5		SB-2-0.5		SB-3-0.5		SB-3-0.5-FD		SB-4-0.5		SB-5-0.5		RPD
Sample Date						9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	%
	CAS#	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)													
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	NE	23	350	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
1,2,4-Trichlorobenzene	120-82-1	NE	NE	24	110	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
1,2-Dichlorobenzene	95-50-1	NE	NE	1800	9300	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	NE	0.68	2.9	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
1,3-Dichlorobenzene	541-73-1	NE	NE	NE	NE	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
1,4-Dichlorobenzene	106-46-7	NE	NE	2.6	11	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
1-Methylnaphthalene	90-12-0	NE	NE	18	73	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
2,4,5-Trichlorophenol	95-95-4	NE	NE	6300	82000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2,4,6-Trichlorophenol	88-06-2	NE	NE	49	210	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2,4-Dichlorophenol	120-83-2	NE	NE	190	2500	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2,4-Dimethylphenol	105-67-9	NE	NE	1300	16000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2,4-Dinitrophenol	51-28-5	NE	NE	130	1600	0.74	U	0.78	U	0.75	U	0.76	U	0.73	U	0.71	U	-
2,4-Dinitrotoluene	121-14-2	NE	NE	1.7	7.4	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2,6-Dinitrotoluene	606-20-2	NE	NE	0.36	1.5	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2-Chloronaphthalene	91-58-7	NE	NE	4800	60000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2-Chlorophenol	95-57-8	NE	NE	390	5800	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2-Methylnaphthalene	91-57-6	NE	NE	240	3000	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
2-Methylphenol	95-48-7	NE	NE	3200	41000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2-Nitroaniline	88-74-4	NE	NE	630	8000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
2-Nitrophenol	88-75-5	NE	NE	NE	NE	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
3,3-Dichlorobenzidine	91-94-1	NE	NE	1.2	5.1	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
3/4-Methylphenol	108-39-4/106-4	NE	NE	NE	NE	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
3-Nitroaniline	99-09-2	NE	NE	NE	NE	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
4,6-Dinitro-2-methylphenol	534-52-1	NE	NE	5.1	66	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
4-Bromophenylphenylether	101-55-3	NE	NE	NE	NE	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
4-Chloro-3-methylphenol	59-50-7	NE	NE	6300	82000	0.74	U	0.78	U	0.75	U	0.76	U	0.73	U	0.71	U	-
4-Chloroaniline	106-47-8	NE	NE	2.7	11	0.74	U	0.78	U	0.75	U	0.76	U	0.73	U	0.71	U	-
4-Chlorophenylphenylether	7005-72-3	NE	NE	NE	NE	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
4-Nitroaniline	100-01-6	NE	NE	27	110	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
4-Nitrophenol	100-02-7	NE	NE	NE	NE	0.74	U	0.78	U	0.75	U	0.76	U	0.73	U	0.71	U	-
Acenaphthene	83-32-9	NE	NE	3600	45000	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Acenaphthylene	208-96-8	NE	NE	NE	NE	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Acetophenone	98-86-2	NE	NE	7800	120000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Aniline	62-53-3	NE	NE	95	400	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Anthracene	120-12-7	NE	NE	18000	230000	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
B(a)P-TEQ	50-32-8	0.07	1.54	0.11	2.1	0.22	U	0.231	U	0.22	U	0.231	U	0.22	U	0.208	U	-
Benzidine	92-87-5	NE	NE	0.00053	0.01	0.74	U	0.78	U	0.75	U	0.76	U	0.73	U	0.71	U	-
Benzo(a)anthracene	56-55-3	NE	NE	1.1	21	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Benzo(a)pyrene	50-32-8	0.07	1.54	0.11	2.1	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Benzo(b)fluoranthene	205-99-2	NE	NE	1.1	21	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Benzo(g,h,i)perylene	191-24-2	NE	NE	NE	NE	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Benzo(k)fluoranthene	207-08-9	NE	NE	11	210	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Benzoic Acid	65-85-0	NE	NE	250000	3300000	1.1	U	1.2	U	1.1	U	1.2	U	1.1	U	1.1	U	-
Bis(2-chloroethoxy)methane	111-91-1	NE	NE	190	2500	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Bis(2-chloroethyl)ether	111-44-4	NE	NE	0.23	1	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Bis(2-chloroisopropyl)ether	108-60-1	2804	36274	3100	47000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Bis(2-Ethylhexyl)phthalate	117-81-7	20	120	39	160	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Butylbenzylphthalate	85-68-7	NE	NE	290	1200	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Carbazole	86-74-8	NE	NE	NE	NE	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Chrysene	218-01-9	NE	NE	110	2100	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Dibenz(a,h)anthracene	53-70-3	NE	NE	0.11	2.1	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, May 2023
mg/kg - milligrams per kilogram (parts per million)
NE - screening level not established
U - Analyte not detected; limit of quantitation listed

Table C-24
SVOCs Analytical Results - Soil

Sample ID		VSS - Resident	VSS - Non-resident	EPA Residential RSL	EPA Industrial RSL	SB-1-0.5		SB-2-0.5		SB-3-0.5		SB-3-0.5-FD		SB-4-0.5		SB-5-0.5		RPD
Sample Date						9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	%
	CAS#	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)													
Dibenzofuran	132-64-9	NE	NE	73	1000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Diethylphthalate	84-66-2	NE	NE	51000	660000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Dimethylphthalate	131-11-3	NE	NE	NE	NE	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Di-n-butylphthalate	84-74-2	NE	NE	6300	82000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Di-n-octylphthalate	117-84-0	NE	NE	630	8200	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Fluoranthene	206-44-0	2301	26371	2400	30000	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Fluorene	86-73-7	2301	26371	2400	30000	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Hexachlorobenzene	118-74-1	0.13	0.69	0.21	0.96	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Hexachlorobutadiene	87-68-3	NE	NE	1.2	5.3	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Hexachlorocyclopentadiene	77-47-4	NE	NE	1.8	7.5	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Hexachloroethane	67-72-1	NE	NE	1.8	8	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Indeno(1,2,3-cd)pyrene	193-39-5	NE	NE	1.1	21	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Isophorone	78-59-1	NE	NE	570	2400	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Naphthalene	91-20-3	2.7	16	2	8.6	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Nitrobenzene	98-95-3	NE	NE	5.1	22	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
N-Nitrosodimethylamine	62-75-9	NE	NE	0.002	0.034	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
N-Nitrosodi-n-propylamine	621-64-7	NE	NE	0.078	0.33	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	NE	110	470	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Pentachloronitrobenzene	82-68-8	NE	NE	2.7	13	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Pentachlorophenol	87-86-5	0.48	2.9	1	4	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Phenanthrene	85-01-8	NE	NE	NE	NE	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Phenol	108-95-2	NE	NE	19000	250000	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-
Pyrene	129-00-0	NE	NE	1800	23000	0.19	U	0.2	U	0.19	U	0.2	U	0.19	U	0.18	U	-
Pyridine	110-86-1	NE	NE	78	1200	0.38	U	0.4	U	0.39	U	0.39	U	0.37	U	0.36	U	-

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, May 2023
mg/kg - milligrams per kilogram (parts per million)
NE - screening level not established
U - Analyte not detected; limit of quantitation listed
Q - laboratory result qualifier

Table C-25
TPH Analytical Results - Soil

Sample ID	EPA Residential RSL*	EPA Industrial RSL*	SB-1-0.5		SB-2-0.5		SB-3-0.5		SB-3-0.5-FD		SB-4-0.5		SB-5-0.5		RPD
Sample Date			**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	
	(mg/Kg)	**(mg/Kg)**													
TPH (C9-C36)	96 to 2.3E+05	440 to 3.5+06	**300**		**230**		**270**		**260**		76		27		4%

Key:
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, May 2023
mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the residential enforcement standard(s)
*EPA RSLs are provided as a range for medium and high carbon range aromatic and aliphatic TPH
Q - laboratory result qualifier

Table C-26
VOCs Analytical Results - Soil

Sample ID		VSS - Resident	VSS - Non-resident	EPA Residential RSL	EPA Industrial RSL	SB-1-0.5		SB-2-0.5		SB-3-0.5		SB-3-0.5-FD		SB-4-0.5		RPD	
Sample Date						9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q	9/14/2022	Q		
	CAS#	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)												
1,1,1,2-Tetrachloroethane	630-20-6	1.3	8	2	8.8	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,1,1-Trichloroethane	71-55-6	NE	NE	8100	36000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,1,2,2-Tetrachloroethane	79-34-5	NE	NE	0.6	2.7	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	NE	6700	28000	0.0094	U	0.0095	U	0.014	U	0.011	U	0.01	U	-	
1,1,2-Trichloroethane	79-00-5	NE	NE	1.1	5	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,1-Dichloroethane	75-34-3	2.1	13	3.6	16	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,1-Dichloroethylene	75-35-4	NE	NE	230	1000	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-	
1,1-Dichloropropene	563-58-6	NE	NE	NE	NE	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,2,3-Trichlorobenzene	87-61-6	NE	NE	63	930	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,2,3-Trichloropropane	96-18-4	0.00311	0.07	0.0051	0.11	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,2,4-Trichlorobenzene	120-82-1	NE	NE	24	110	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,2,4-Trimethylbenzene	95-63-6	144	177	300	1800	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.01	0.06	0.0053	0.064	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-	
1,2-Dibromoethane (EDB)	106-93-4	0.02	0.14	0.036	0.16	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-	
1,2-Dichlorobenzene	95-50-1	NE	NE	1800	9300	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,2-Dichloroethane	107-06-2	0.29	1.7	0.46	2	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,2-Dichloropropane	78-87-5	1.5	9.1	2.5	11	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,3,5-Trichlorobenzene	108-70-3	NE	NE	NE	NE	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,3,5-Trimethylbenzene	108-67-8	144	177	270	1500	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,3-Dichlorobenzene	541-73-1	NE	NE	NE	NE	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,3-Dichloropropane	142-28-9	NE	NE	1600	23000	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-	
1,4-Dichlorobenzene	106-46-7	NE	NE	2.6	11	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
1,4-Dioxane	123-91-1	2.8	17	5.3	24	0.094	U	0.095	U	0.14	U	0.11	U	0.1	U	-	
2,2-Dichloropropane	594-20-7	NE	NE	NE	NE	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
2-Butanone (MEK)	78-93-3	16952	26991	27000	190000	0.038	U	0.038	U	0.057	U	0.044	U	0.041	U	-	
2-Chlorotoluene	95-49-8	NE	NE	1600	23000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
2-Hexanone (MBK)	591-78-6	NE	NE	200	1300	0.019	U	0.019	U	0.029	U	0.022	U	0.02	U	-	
4-Chlorotoluene	106-43-4	NE	NE	1600	23000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	NE	33000	140000	0.019	U	0.019	U	0.029	U	0.022	U	0.02	U	-	
Acetone	67-64-1	40609	100028	61000	670000	**0.025**	J	**0.031**	J	**0.084**	J	**0.061**	J	**0.046**	J	32%	
Acrylonitrile	107-13-1	NE	NE	0.25	1.1	0.0056	U	0.0057	U	0.0086	U	0.0065	U	0.0061	U	-	
Benzene	71-43-2	0.7	4.2	1.2	5.1	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
Bromobenzene	108-86-1	NE	NE	290	1800	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
Bromochloromethane	74-97-5	193	597	150	630	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
Bromodichloromethane	75-27-4	NE	NE	0.29	1.3	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
Bromoform	75-25-2	NE	NE	19	86	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
Bromomethane	74-83-9	NE	NE	6.8	30	0.0094	U	0.0095	U	0.014	U	0.011	U	0.01	U	-	
Carbon Disulfide	75-15-0	608	662	770	3500	0.0094	U	0.0095	U	0.014	U	0.011	U	0.01	U	-	
Carbon Tetrachloride	56-23-5	0.37	2.2	0.65	2.9	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
Chlorobenzene	108-90-7	414	726	280	1300	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
Chlorodibromomethane	124-48-1	NE	NE	8.3	39	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-	
Chloroethane	75-00-3	NE	NE	14000	57000	0.019	U	0.019	U	0.029	U	0.022	U	0.02	U	-	
Chloroform	67-66-3	NE	NE	0.32	1.4	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-	
Chloromethane	74-87-3	NE	NE	110	460	0.0094	U	0.0095	U	0.014	U	0.011	U	0.01	U	-	
cis-1,2-Dichloroethylene	156-59-2	140	1814	160	2300	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	
cis-1,3-Dichloropropene	10061-01-5	NE	NE	NE	NE	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-	
Dibromomethane	74-95-3	NE	NE	24	99	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-	

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
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mg/kg - milligrams per kilogram (parts per million)
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated

Bold results indicate detections of the analyte
NE - screening level not established
U - Analyte not detected; limit of quantitation listed
Q - laboratory result qualifier

Table C-26
VOCs Analytical Results - Soil

Sample ID		VSS - Resident	VSS - Non-resident	EPA Residential RSL	EPA Industrial RSL	SB-1-0.5		SB-2-0.5		SB-3-0.5		SB-3-0.5-FD		SB-4-0.5		RPD
Sample Date						**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	**9/14/2022**	**Q**	
	CAS#	**(mg/Kg)**	**(mg/Kg)**	**(mg/Kg)**	**(mg/Kg)**											
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	NE	87	370	0.019	U	0.019	U	0.029	U	0.022	U	0.02	U	-
Diethyl Ether	60-29-7	NE	NE	16000	230000	0.019	U	0.019	U	0.029	U	0.022	U	0.02	U	-
Diisopropyl Ether (DIPE)	108-20-3	NE	NE	2200	9400	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-
Ethylbenzene	100-41-4	3.7	22	5.8	25	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Hexachlorobutadiene	87-68-3	NE	NE	1.2	5.3	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Isopropylbenzene (Cumene)	98-82-8	256	264	1900	9900	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
m+p Xylene	108383/106423	NE	NE	NE	NE	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-
Methyl Acetate	79-20-9	NE	NE	78000	1200000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Methyl Cyclohexane	108-87-2	NE	NE	NE	NE	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Methyl tert-Butyl Ether (MTBE)	1634-04-4	649	4464	47	210	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-
Methylene Chloride	75-09-2	NE	NE	57	1000	0.019	U	0.019	U	0.029	U	0.022	U	0.02	U	-
Naphthalene	91-20-3	2.7	16	2	8.6	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-
n-Butylbenzene	104-51-8	3504	51100	3900	58000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
n-Propylbenzene	103-65-1	253	261	3800	24000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
o-Xylene	95-47-6	NE	NE	650	2800	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	NE	NE	NE	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
sec-Butylbenzene	135-98-8	7009	102200	7800	120000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Styrene	100-42-5	NE	NE	6000	35000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	NE	NE	NE	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-
tert-Butyl Alcohol (TBA)	75-65-0	NE	NE	NE	NE	0.094	U	0.095	U	0.14	U	0.11	U	0.1	U	-
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	NE	NE	NE	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-
tert-Butylbenzene	98-06-6	7009	102200	7800	120000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Tetrachloroethylene	127-18-4	2.4	14	24	100	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Tetrahydrofuran	109-99-9	NE	NE	18000	94000	0.0094	U	0.0095	U	0.014	U	0.011	U	0.01	U	-
Toluene	108-88-3	706	798	4900	47000	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Total Trimethylbenzene	25551-13-7	NE	NE	NE	NE	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Total Xylene	1330-20-7	252	257	580	2500	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-
trans-1,2-Dichloroethylene	156-60-5	1402	18137	70	300	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
trans-1,3-Dichloropropene	10061-02-6	NE	NE	NE	NE	0.00094	U	0.00095	U	0.0014	U	0.0011	U	0.001	U	-
trans-1,4-Dichloro-2-butene	110-57-6	NE	NE	0.0074	0.032	0.0038	U	0.0038	U	0.0057	U	0.0044	U	0.0041	U	-
Trichloroethylene	79-01-6	0.68	6.5	0.94	6	0.0019	U	0.0019	U	0.0029	U	0.0022	U	0.002	U	-
Trichlorofluoromethane (Freon 11)	75-69-4	NE	NE	23000	350000	0.0094	U	0.0095	U	0.014	U	0.011	U	0.01	U	-
Vinyl Chloride	75-01-4	0.1	0.59	0.059	1.7	0.0094	U	0.0095	U	0.014	U	0.011	U	0.01	U	-

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
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mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
NE - screening level not established
U - Analyte not detected; limit of quantitation listed
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated
Q - laboratory result qualifier

Table C-26
VOCs Analytical Results - Soil

Sample ID		VSS - Resident	VSS - Non-resident	EPA Residential RSL	EPA Industrial RSL	SB-5-0.5		Trip Blank	
Sample Date						9/14/2022	Q	9/14/2022	Q
	CAS#	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)				
1,1,1,2-Tetrachloroethane	630-20-6	1.3	8	2	8.8	0.0016	U	0.002	U
1,1,1-Trichloroethane	71-55-6	NE	NE	8100	36000	0.0016	U	0.002	U
1,1,2,2-Tetrachloroethane	79-34-5	NE	NE	0.6	2.7	0.00079	U	0.001	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	NE	6700	28000	0.0079	U	0.01	U
1,1,2-Trichloroethane	79-00-5	NE	NE	1.1	5	0.0016	U	0.002	U
1,1-Dichloroethane	75-34-3	2.1	13	3.6	16	0.0016	U	0.002	U
1,1-Dichloroethylene	75-35-4	NE	NE	230	1000	0.0032	U	0.004	U
1,1-Dichloropropene	563-58-6	NE	NE	NE	NE	0.0016	U	0.002	U
1,2,3-Trichlorobenzene	87-61-6	NE	NE	63	930	0.0016	U	0.002	U
1,2,3-Trichloropropane	96-18-4	0.00311	0.07	0.0051	0.11	0.0016	U	0.002	U
1,2,4-Trichlorobenzene	120-82-1	NE	NE	24	110	0.0016	U	0.002	U
1,2,4-Trimethylbenzene	95-63-6	144	177	300	1800	0.0016	U	0.002	U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.01	0.06	0.0053	0.064	0.0032	U	0.004	U
1,2-Dibromoethane (EDB)	106-93-4	0.02	0.14	0.036	0.16	0.00079	U	0.001	U
1,2-Dichlorobenzene	95-50-1	NE	NE	1800	9300	0.0016	U	0.002	U
1,2-Dichloroethane	107-06-2	0.29	1.7	0.46	2	0.0016	U	0.002	U
1,2-Dichloropropane	78-87-5	1.5	9.1	2.5	11	0.0016	U	0.002	U
1,3,5-Trichlorobenzene	108-70-3	NE	NE	NE	NE	0.0016	U	0.002	U
1,3,5-Trimethylbenzene	108-67-8	144	177	270	1500	0.0016	U	0.002	U
1,3-Dichlorobenzene	541-73-1	NE	NE	NE	NE	0.0016	U	0.002	U
1,3-Dichloropropane	142-28-9	NE	NE	1600	23000	0.00079	U	0.001	U
1,4-Dichlorobenzene	106-46-7	NE	NE	2.6	11	0.0016	U	0.002	U
1,4-Dioxane	123-91-1	2.8	17	5.3	24	0.079	U	0.1	U
2,2-Dichloropropane	594-20-7	NE	NE	NE	NE	0.0016	U	0.002	U
2-Butanone (MEK)	78-93-3	16952	26991	27000	190000	0.032	U	0.04	U
2-Chlorotoluene	95-49-8	NE	NE	1600	23000	0.0016	U	0.002	U
2-Hexanone (MBK)	591-78-6	NE	NE	200	1300	0.016	U	0.02	U
4-Chlorotoluene	106-43-4	NE	NE	1600	23000	0.0016	U	0.002	U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	NE	33000	140000	0.016	U	0.02	U
Acetone	67-64-1	40609	100028	61000	670000	**0.012**	J	0.1	U
Acrylonitrile	107-13-1	NE	NE	0.25	1.1	0.0047	U	0.006	U
Benzene	71-43-2	0.7	4.2	1.2	5.1	0.0016	U	0.002	U
Bromobenzene	108-86-1	NE	NE	290	1800	0.0016	U	0.002	U
Bromochloromethane	74-97-5	193	597	150	630	0.0016	U	0.002	U
Bromodichloromethane	75-27-4	NE	NE	0.29	1.3	0.0016	U	0.002	U
Bromoform	75-25-2	NE	NE	19	86	0.0016	U	0.002	U
Bromomethane	74-83-9	NE	NE	6.8	30	0.0079	U	0.01	U
Carbon Disulfide	75-15-0	608	662	770	3500	0.0079	U	0.01	U
Carbon Tetrachloride	56-23-5	0.37	2.2	0.65	2.9	0.0016	U	0.002	U
Chlorobenzene	108-90-7	414	726	280	1300	0.0016	U	0.002	U
Chlorodibromomethane	124-48-1	NE	NE	8.3	39	0.00079	U	0.001	U
Chloroethane	75-00-3	NE	NE	14000	57000	0.016	U	0.02	U
Chloroform	67-66-3	NE	NE	0.32	1.4	0.0032	U	0.004	U
Chloromethane	74-87-3	NE	NE	110	460	0.0079	U	0.01	U

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, November 2022
mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
NE - screening level not established
U - Analyte not detected; limit of quantitation listed
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated
Q - laboratory result qualifier

Table C-26
VOCs Analytical Results - Soil

Sample ID		VSS - Resident	VSS - Non-resident	EPA Residential RSL	EPA Industrial RSL	SB-5-0.5		Trip Blank	
Sample Date						**9/14/2022**	**Q**	**9/14/2022**	**Q**
	CAS#	**(mg/Kg)**	**(mg/Kg)**	**(mg/Kg)**	**(mg/Kg)**				
cis-1,2-Dichloroethylene	156-59-2	140	1814	160	2300	0.0016	U	0.002	U
cis-1,3-Dichloropropene	10061-01-5	NE	NE	NE	NE	0.00079	U	0.001	U
Dibromomethane	74-95-3	NE	NE	24	99	0.0016	U	0.002	U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	NE	87	370	0.016	U	0.02	U
Diethyl Ether	60-29-7	NE	NE	16000	230000	0.016	U	0.02	U
Diisopropyl Ether (DIPE)	108-20-3	NE	NE	2200	9400	0.00079	U	0.001	U
Ethylbenzene	100-41-4	3.7	22	5.8	25	0.0016	U	0.002	U
Hexachlorobutadiene	87-68-3	NE	NE	1.2	5.3	0.0016	U	0.002	U
Isopropylbenzene (Cumene)	98-82-8	256	264	1900	9900	0.0016	U	0.002	U
m+p Xylene	108383/106423	NE	NE	NE	NE	0.0032	U	0.004	U
Methyl Acetate	79-20-9	NE	NE	78000	1200000	0.0016	U	0.002	U
Methyl Cyclohexane	108-87-2	NE	NE	NE	NE	0.0016	U	0.002	U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	649	4464	47	210	0.0032	U	0.004	U
Methylene Chloride	75-09-2	NE	NE	57	1000	0.016	U	0.02	U
Naphthalene	91-20-3	2.7	16	2	8.6	0.0032	U	0.004	U
n-Butylbenzene	104-51-8	3504	51100	3900	58000	0.0016	U	0.002	U
n-Propylbenzene	103-65-1	253	261	3800	24000	0.0016	U	0.002	U
o-Xylene	95-47-6	NE	NE	650	2800	0.0016	U	0.002	U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	NE	NE	NE	0.0016	U	0.002	U
sec-Butylbenzene	135-98-8	7009	102200	7800	120000	0.0016	U	0.002	U
Styrene	100-42-5	NE	NE	6000	35000	0.0016	U	0.002	U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	NE	NE	NE	0.00079	U	0.001	U
tert-Butyl Alcohol (TBA)	75-65-0	NE	NE	NE	NE	0.079	U	0.1	U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	NE	NE	NE	0.00079	U	0.001	U
tert-Butylbenzene	98-06-6	7009	102200	7800	120000	0.0016	U	0.002	U
Tetrachloroethylene	127-18-4	2.4	14	24	100	0.0016	U	0.002	U
Tetrahydrofuran	109-99-9	NE	NE	18000	94000	0.0079	U	0.01	U
Toluene	108-88-3	706	798	4900	47000	0.0016	U	0.002	U
Total Trimethylbenzene	25551-13-7	NE	NE	NE	NE	0.0016	U	0.002	U
Total Xylene	1330-20-7	252	257	580	2500	0.0032	U	0.004	U
trans-1,2-Dichloroethylene	156-60-5	1402	18137	70	300	0.0016	U	0.002	U
trans-1,3-Dichloropropene	10061-02-6	NE	NE	NE	NE	0.00079	U	0.001	U
trans-1,4-Dichloro-2-butene	110-57-6	NE	NE	0.0074	0.032	0.0032	U	0.004	U
Trichloroethylene	79-01-6	0.68	6.5	0.94	6	0.0016	U	0.002	U
Trichlorofluoromethane (Freon 11)	75-69-4	NE	NE	23000	350000	0.0079	U	0.01	U
Vinyl Chloride	75-01-4	0.1	0.59	0.059	1.7	0.0079	U	0.01	U

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, November 2022
mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
NE - screening level not established
U - Analyte not detected; limit of quantitation listed
J - Analyte was detected between the method detection limit and the quantitation limit. Value provided is estimated
Q - laboratory result qualifier

Appendix D: Laboratory Reports

con-test®
A Pace Analytical® Laboratory

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

October 20, 2022

Rebecca Treat
Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602

Project Location: Thetford, VT
Client Job Number:
Project Number: 20-096
Laboratory Work Order Number: 22I1103

Enclosed are results of analyses for samples as received by the laboratory on September 20, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

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

Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 10/20/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22I1103

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

PROJECT LOCATION: Theftford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SB-1-0.5	22I1103-01	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
SB-2-0.5	22I1103-02	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
SB-3-0.5	22I1103-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
SB-3-0.5-FD	22I1103-04	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
SB-4-0.5	22I1103-05	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
SB-5-0.5	22I1103-06	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
Trip Blank	22I1103-07	Trip Blank Soil		SW-846 8260D	

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CASE NARRATIVE SUMMARY

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

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

SM 2540G

Qualifications:

H-09

Sample received by laboratory with insufficient time remaining to perform analysis within the recommended holding time.

Analyte & Samples(s) Qualified:

% Solids
22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], 22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5]

SW-846 6010D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

B317958-BS1

Beryllium
B317958-BS1

Nickel
B317958-BS1

M-10

The reporting limit verification for the AIHA lead program is outside of control limits for this element. Any reported result at or near the detection limit may be biased on the high side.

Analyte & Samples(s) Qualified:

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], 22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5], B317958-SRM1

SW-846 8015C

Qualifications:

O-06

Sample falls within the range of a #6 fuel oil. However, it also has some characteristics of a higher boiling range hydrocarbon. It does not match any of the laboratory standard reference materials exactly.

Analyte & Samples(s) Qualified:

TPH (C9-C36)
22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], 22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5]

SW-846 8260D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Acrylonitrile
B317756-BSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Acetone
B317756-BS1, B317756-BSD1, S076807-CCV1

Acrylonitrile
B317756-BS1, B317756-BSD1, S076807-CCV1

Methyl Acetate
B317756-BS1, B317756-BSD1, S076807-CCV1

Methylene Chloride
B317756-BS1, B317756-BSD1, S076807-CCV1

SW-846 8270E

Qualifications:

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L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Hexachlorocyclopentadiene

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], 22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5], B317736-BS1, B317736-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Benzidine

B317736-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol

22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5], B317736-BLK1, B317736-BS1, B317736-BSD1, S077049-CCV1

Benzidine

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], 22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5], B317736-BLK1, B317736-BS1, B317736-BSD1, S077033-CCV1, S077049-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Hexachlorocyclopentadiene

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], 22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5], B317736-BLK1, B317736-BS1, B317736-BSD1, S076873-CCV1, S077033-CCV1, S077049-CCV1

Pentachlorophenol

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], S077033-CCV1

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

Bis(2-Ethylhexyl)phthalate

S077033-CCV1

Di-n-octylphthalate

S077033-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Bis(2-Ethylhexyl)phthalate

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5]

Di-n-octylphthalate

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5]

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

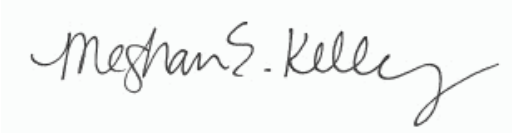
Analyte & Samples(s) Qualified:

Benzidine

22I1103-01[SB-1-0.5], 22I1103-02[SB-2-0.5], 22I1103-03[SB-3-0.5], 22I1103-04[SB-3-0.5-FD], 22I1103-05[SB-4-0.5], 22I1103-06[SB-5-0.5], S074943-ICV1, S075436-ICV1, S076873-CCV1, S077033-CCV1, S077049-CCV1

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

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



Meghan E. Kelley
Reporting Specialist

con-test®
A Pace Analytical® Laboratory

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-1-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	0.025	0.094	0.0086	mg/Kg dry	1	J	SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Acrylonitrile	ND	0.0056	0.00093	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00094	0.00034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Benzene	ND	0.0019	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Bromobenzene	ND	0.0019	0.00034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Bromochloromethane	ND	0.0019	0.00082	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Bromodichloromethane	ND	0.0019	0.00046	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Bromoform	ND	0.0019	0.00058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Bromomethane	ND	0.0094	0.0015	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
2-Butanone (MEK)	ND	0.038	0.0054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
tert-Butyl Alcohol (TBA)	ND	0.094	0.043	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
n-Butylbenzene	ND	0.0019	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
sec-Butylbenzene	ND	0.0019	0.00090	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
tert-Butylbenzene	ND	0.0019	0.00073	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00094	0.00046	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Carbon Disulfide	ND	0.0094	0.0066	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Carbon Tetrachloride	ND	0.0019	0.00082	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Chlorobenzene	ND	0.0019	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Chlorodibromomethane	ND	0.00094	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Chloroethane	ND	0.019	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Chloroform	ND	0.0038	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Chloromethane	ND	0.0094	0.00095	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
2-Chlorotoluene	ND	0.0019	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
4-Chlorotoluene	ND	0.0019	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0038	0.00082	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2-Dibromoethane (EDB)	ND	0.00094	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Dibromomethane	ND	0.0019	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2-Dichlorobenzene	ND	0.0019	0.00041	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,3-Dichlorobenzene	ND	0.0019	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,4-Dichlorobenzene	ND	0.0019	0.00050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
trans-1,4-Dichloro-2-butene	ND	0.0038	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.019	0.00099	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1-Dichloroethane	ND	0.0019	0.00065	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2-Dichloroethane	ND	0.0019	0.00061	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1-Dichloroethylene	ND	0.0038	0.00067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
cis-1,2-Dichloroethylene	ND	0.0019	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
trans-1,2-Dichloroethylene	ND	0.0019	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2-Dichloropropane	ND	0.0019	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,3-Dichloropropane	ND	0.00094	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
2,2-Dichloropropane	ND	0.0019	0.00077	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1-Dichloropropene	ND	0.0019	0.00092	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
cis-1,3-Dichloropropene	ND	0.00094	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
trans-1,3-Dichloropropene	ND	0.00094	0.00046	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Diethyl Ether	ND	0.019	0.00067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF

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Project Location: Theftford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-1-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00094	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,4-Dioxane	ND	0.094	0.033	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Ethylbenzene	ND	0.0019	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Hexachlorobutadiene	ND	0.0019	0.00069	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
2-Hexanone (MBK)	ND	0.019	0.0054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Isopropylbenzene (Cumene)	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0019	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Methyl Acetate	ND	0.0019	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0038	0.00034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Methyl Cyclohexane	ND	0.0019	0.00070	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Methylene Chloride	ND	0.019	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.019	0.0039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Naphthalene	ND	0.0038	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
n-Propylbenzene	ND	0.0019	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Styrene	ND	0.0019	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1,1,2-Tetrachloroethane	ND	0.0019	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1,2,2-Tetrachloroethane	ND	0.00094	0.00048	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Tetrachloroethylene	ND	0.0019	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Tetrahydrofuran	ND	0.0094	0.0032	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Toluene	ND	0.0019	0.00048	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2,3-Trichlorobenzene	ND	0.0019	0.00050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2,4-Trichlorobenzene	ND	0.0019	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,3,5-Trichlorobenzene	ND	0.0019	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1,1-Trichloroethane	ND	0.0019	0.00075	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1,2-Trichloroethane	ND	0.0019	0.00043	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Trichloroethylene	ND	0.0019	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0094	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2,3-Trichloropropane	ND	0.0019	0.00098	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0094	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,2,4-Trimethylbenzene	ND	0.0019	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
1,3,5-Trimethylbenzene	ND	0.0019	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
Vinyl Chloride	ND	0.0094	0.00060	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
m+p Xylene	ND	0.0038	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF
o-Xylene	ND	0.0019	0.00041	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:10	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	85.0	70-130		9/21/22 7:10
Toluene-d8	98.2	70-130		9/21/22 7:10
4-Bromofluorobenzene	93.3	70-130		9/21/22 7:10

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-1-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Acetophenone	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Aniline	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Benzidine	ND	0.74	mg/Kg dry	1	V-04, V-35	SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Benzo(a)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Benzo(a)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Benzo(b)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Benzoic Acid	ND	1.1	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Bis(2-chloroethoxy)methane	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Bis(2-chloroethyl)ether	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Bis(2-chloroisopropyl)ether	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.38	mg/Kg dry	1	V-20	SW-846 8270E	9/21/22	9/23/22 17:57	BGL
4-Bromophenylphenylether	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Butylbenzylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Carbazole	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
4-Chloroaniline	ND	0.74	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
4-Chloro-3-methylphenol	ND	0.74	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2-Chloronaphthalene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2-Chlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
4-Chlorophenylphenylether	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Chrysene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Dibenzofuran	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Di-n-butylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
1,2-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
1,3-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
1,4-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
3,3-Dichlorobenzidine	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2,4-Dichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Diethylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2,4-Dimethylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Dimethylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
4,6-Dinitro-2-methylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2,4-Dinitrophenol	ND	0.74	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2,4-Dinitrotoluene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2,6-Dinitrotoluene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Di-n-octylphthalate	ND	0.38	mg/Kg dry	1	V-20	SW-846 8270E	9/21/22	9/23/22 17:57	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-1-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Hexachlorobutadiene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Hexachlorocyclopentadiene	ND	0.38	mg/Kg dry	1	L-04, V-05	SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Hexachloroethane	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Isophorone	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
1-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2-Methylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
3/4-Methylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2-Nitroaniline	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
3-Nitroaniline	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
4-Nitroaniline	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Nitrobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2-Nitrophenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
4-Nitrophenol	ND	0.74	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
N-Nitrosodimethylamine	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
N-Nitrosodi-n-propylamine	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Pentachloronitrobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Pentachlorophenol	ND	0.38	mg/Kg dry	1	V-05	SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Phenanthrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Phenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
Pyridine	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
1,2,4-Trichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2,4,5-Trichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL
2,4,6-Trichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 17:57	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	65.5	30-130		9/23/22 17:57
Phenol-d6	71.4	30-130		9/23/22 17:57
Nitrobenzene-d5	86.8	30-130		9/23/22 17:57
2-Fluorobiphenyl	69.6	30-130		9/23/22 17:57
2,4,6-Tribromophenol	76.9	30-130		9/23/22 17:57
p-Terphenyl-d14	84.1	30-130		9/23/22 17:57

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-1-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-01

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	300	93	mg/Kg dry	10	O-06	SW-846 8015C	9/21/22	9/24/22 4:28	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorobiphenyl	84.5	40-140		9/24/22 4:28

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-1-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.7	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Arsenic	ND	3.5	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Beryllium	0.40	0.17	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Cadmium	ND	0.35	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Chromium	10	0.70	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Copper	5.9	0.70	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Lead	15	0.52	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Mercury	0.035	0.027	mg/Kg dry	1		SW-846 7471B	9/22/22	9/23/22 16:25	MJH
Nickel	6.9	0.70	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Selenium	ND	3.5	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH
Silver	ND	0.35	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:42	ATP
Thallium	ND	1.7	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:42	ATP
Zinc	20	0.70	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:34	MJH

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-1-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-01

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.4		% Wt	1	H-09	SM 2540G	9/22/22	9/22/22 20:47	RWS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-2-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	0.031	0.095	0.0087	mg/Kg dry	1	J	SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Acrylonitrile	ND	0.0057	0.00094	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00095	0.00035	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Benzene	ND	0.0019	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Bromobenzene	ND	0.0019	0.00035	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Bromochloromethane	ND	0.0019	0.00083	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Bromodichloromethane	ND	0.0019	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Bromoform	ND	0.0019	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Bromomethane	ND	0.0095	0.0016	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
2-Butanone (MEK)	ND	0.038	0.0055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
tert-Butyl Alcohol (TBA)	ND	0.095	0.044	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
n-Butylbenzene	ND	0.0019	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
sec-Butylbenzene	ND	0.0019	0.00091	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
tert-Butylbenzene	ND	0.0019	0.00074	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00095	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Carbon Disulfide	ND	0.0095	0.0067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Carbon Tetrachloride	ND	0.0019	0.00083	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Chlorobenzene	ND	0.0019	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Chlorodibromomethane	ND	0.00095	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Chloroethane	ND	0.019	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Chloroform	ND	0.0038	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Chloromethane	ND	0.0095	0.00097	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
2-Chlorotoluene	ND	0.0019	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
4-Chlorotoluene	ND	0.0019	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0038	0.00083	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2-Dibromoethane (EDB)	ND	0.00095	0.00064	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Dibromomethane	ND	0.0019	0.00070	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2-Dichlorobenzene	ND	0.0019	0.00042	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,3-Dichlorobenzene	ND	0.0019	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,4-Dichlorobenzene	ND	0.0019	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
trans-1,4-Dichloro-2-butene	ND	0.0038	0.00069	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.019	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1-Dichloroethane	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2-Dichloroethane	ND	0.0019	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1-Dichloroethylene	ND	0.0038	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
cis-1,2-Dichloroethylene	ND	0.0019	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
trans-1,2-Dichloroethylene	ND	0.0019	0.00064	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2-Dichloropropane	ND	0.0019	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,3-Dichloropropane	ND	0.00095	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
2,2-Dichloropropane	ND	0.0019	0.00079	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1-Dichloropropene	ND	0.0019	0.00093	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
cis-1,3-Dichloropropene	ND	0.00095	0.00048	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
trans-1,3-Dichloropropene	ND	0.00095	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Diethyl Ether	ND	0.019	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF

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Project Location: Theftford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-2-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00095	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,4-Dioxane	ND	0.095	0.034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Ethylbenzene	ND	0.0019	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Hexachlorobutadiene	ND	0.0019	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
2-Hexanone (MBK)	ND	0.019	0.0054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Isopropylbenzene (Cumene)	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0019	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Methyl Acetate	ND	0.0019	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0038	0.00034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Methyl Cyclohexane	ND	0.0019	0.00072	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Methylene Chloride	ND	0.019	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.019	0.0040	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Naphthalene	ND	0.0038	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
n-Propylbenzene	ND	0.0019	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Styrene	ND	0.0019	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1,1,2-Tetrachloroethane	ND	0.0019	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1,2,2-Tetrachloroethane	ND	0.00095	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Tetrachloroethylene	ND	0.0019	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Tetrahydrofuran	ND	0.0095	0.0032	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Toluene	ND	0.0019	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2,3-Trichlorobenzene	ND	0.0019	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2,4-Trichlorobenzene	ND	0.0019	0.00046	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,3,5-Trichlorobenzene	ND	0.0019	0.00048	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1,1-Trichloroethane	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1,2-Trichloroethane	ND	0.0019	0.00044	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Trichloroethylene	ND	0.0019	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0095	0.00046	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2,3-Trichloropropane	ND	0.0019	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0095	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,2,4-Trimethylbenzene	ND	0.0019	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
1,3,5-Trimethylbenzene	ND	0.0019	0.00050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
Vinyl Chloride	ND	0.0095	0.00061	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
m+p Xylene	ND	0.0038	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF
o-Xylene	ND	0.0019	0.00041	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 7:36	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		9/21/22 7:36
Toluene-d8	98.5	70-130		9/21/22 7:36
4-Bromofluorobenzene	98.2	70-130		9/21/22 7:36

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-2-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Acenaphthylene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Acetophenone	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Aniline	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Benzidine	ND	0.78	mg/Kg dry	1	V-04, V-35	SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Benzo(a)anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Benzo(a)pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Benzo(b)fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Benzo(g,h,i)perylene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Benzo(k)fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Benzoic Acid	ND	1.2	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Bis(2-chloroethoxy)methane	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Bis(2-chloroethyl)ether	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	mg/Kg dry	1	V-20	SW-846 8270E	9/21/22	9/23/22 18:22	BGL
4-Bromophenylphenylether	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Butylbenzylphthalate	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Carbazole	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
4-Chloroaniline	ND	0.78	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
4-Chloro-3-methylphenol	ND	0.78	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2-Chloronaphthalene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2-Chlorophenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
4-Chlorophenylphenylether	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Chrysene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Dibenz(a,h)anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Dibenzofuran	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Di-n-butylphthalate	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
1,2-Dichlorobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
1,3-Dichlorobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
1,4-Dichlorobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
3,3-Dichlorobenzidine	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2,4-Dichlorophenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Diethylphthalate	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2,4-Dimethylphenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Dimethylphthalate	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2,4-Dinitrophenol	ND	0.78	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2,4-Dinitrotoluene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2,6-Dinitrotoluene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Di-n-octylphthalate	ND	0.40	mg/Kg dry	1	V-20	SW-846 8270E	9/21/22	9/23/22 18:22	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Fluorene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-2-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Hexachlorobutadiene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Hexachlorocyclopentadiene	ND	0.40	mg/Kg dry	1	L-04, V-05	SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Hexachloroethane	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Isophorone	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
1-Methylnaphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2-Methylnaphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2-Methylphenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
3/4-Methylphenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Naphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2-Nitroaniline	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
3-Nitroaniline	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
4-Nitroaniline	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Nitrobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2-Nitrophenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
4-Nitrophenol	ND	0.78	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
N-Nitrosodimethylamine	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
N-Nitrosodi-n-propylamine	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Pentachloronitrobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Pentachlorophenol	ND	0.40	mg/Kg dry	1	V-05	SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Phenanthrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Phenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
Pyridine	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
1,2,4-Trichlorobenzene	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2,4,5-Trichlorophenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL
2,4,6-Trichlorophenol	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:22	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	47.0	30-130		9/23/22 18:22
Phenol-d6	53.5	30-130		9/23/22 18:22
Nitrobenzene-d5	66.8	30-130		9/23/22 18:22
2-Fluorobiphenyl	52.1	30-130		9/23/22 18:22
2,4,6-Tribromophenol	53.8	30-130		9/23/22 18:22
p-Terphenyl-d14	61.9	30-130		9/23/22 18:22

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-2-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	230	98	mg/Kg dry	10	O-06	SW-846 8015C	9/21/22	9/24/22 3:57	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual					
2-Fluorobiphenyl	70.2	40-140					9/24/22 3:57	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-2-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Beryllium	0.38	0.19	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Cadmium	ND	0.38	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Chromium	9.7	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Copper	6.7	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Lead	8.3	0.56	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Mercury	0.046	0.030	mg/Kg dry	1		SW-846 7471B	9/22/22	9/23/22 16:27	MJH
Nickel	6.6	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH
Silver	ND	0.38	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:47	ATP
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:47	ATP
Zinc	19	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 19:54	MJH

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-2-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-02

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.8		% Wt	1	H-09	SM 2540G	9/22/22	9/22/22 20:48	RWS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	0.084	0.14	0.013	mg/Kg dry	1	J	SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Acrylonitrile	ND	0.0086	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0014	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Benzene	ND	0.0029	0.00078	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Bromobenzene	ND	0.0029	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Bromochloromethane	ND	0.0029	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Bromodichloromethane	ND	0.0029	0.00070	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Bromoform	ND	0.0029	0.00088	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Bromomethane	ND	0.014	0.0023	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
2-Butanone (MEK)	ND	0.057	0.0082	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
tert-Butyl Alcohol (TBA)	ND	0.14	0.066	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
n-Butylbenzene	ND	0.0029	0.00084	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
sec-Butylbenzene	ND	0.0029	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
tert-Butylbenzene	ND	0.0029	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0014	0.00070	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Carbon Disulfide	ND	0.014	0.010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Carbon Tetrachloride	ND	0.0029	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Chlorobenzene	ND	0.0029	0.00084	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Chlorodibromomethane	ND	0.0014	0.00082	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Chloroethane	ND	0.029	0.0018	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Chloroform	ND	0.0057	0.00084	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Chloromethane	ND	0.014	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
2-Chlorotoluene	ND	0.0029	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
4-Chlorotoluene	ND	0.0029	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0057	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2-Dibromoethane (EDB)	ND	0.0014	0.00096	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Dibromomethane	ND	0.0029	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2-Dichlorobenzene	ND	0.0029	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,3-Dichlorobenzene	ND	0.0029	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,4-Dichlorobenzene	ND	0.0029	0.00076	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
trans-1,4-Dichloro-2-butene	ND	0.0057	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.029	0.0015	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1-Dichloroethane	ND	0.0029	0.00099	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2-Dichloroethane	ND	0.0029	0.00094	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1-Dichloroethylene	ND	0.0057	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
cis-1,2-Dichloroethylene	ND	0.0029	0.00080	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
trans-1,2-Dichloroethylene	ND	0.0029	0.00096	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2-Dichloropropane	ND	0.0029	0.00081	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,3-Dichloropropane	ND	0.0014	0.00074	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
2,2-Dichloropropane	ND	0.0029	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1-Dichloropropene	ND	0.0029	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
cis-1,3-Dichloropropene	ND	0.0014	0.00072	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
trans-1,3-Dichloropropene	ND	0.0014	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Diethyl Ether	ND	0.029	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0014	0.00081	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,4-Dioxane	ND	0.14	0.051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Ethylbenzene	ND	0.0029	0.00077	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Hexachlorobutadiene	ND	0.0029	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
2-Hexanone (MBK)	ND	0.029	0.0082	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Isopropylbenzene (Cumene)	ND	0.0029	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0029	0.00080	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Methyl Acetate	ND	0.0029	0.0021	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0057	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Methyl Cyclohexane	ND	0.0029	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Methylene Chloride	ND	0.029	0.0021	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.029	0.0060	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Naphthalene	ND	0.0057	0.00077	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
n-Propylbenzene	ND	0.0029	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Styrene	ND	0.0029	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1,1,2-Tetrachloroethane	ND	0.0029	0.00080	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1,2,2-Tetrachloroethane	ND	0.0014	0.00074	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Tetrachloroethylene	ND	0.0029	0.00095	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Tetrahydrofuran	ND	0.014	0.0048	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Toluene	ND	0.0029	0.00074	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2,3-Trichlorobenzene	ND	0.0029	0.00077	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2,4-Trichlorobenzene	ND	0.0029	0.00069	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,3,5-Trichlorobenzene	ND	0.0029	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1,1-Trichloroethane	ND	0.0029	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1,2-Trichloroethane	ND	0.0029	0.00065	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Trichloroethylene	ND	0.0029	0.00094	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Trichlorofluoromethane (Freon 11)	ND	0.014	0.00069	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2,3-Trichloropropane	ND	0.0029	0.0015	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.014	0.00094	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,2,4-Trimethylbenzene	ND	0.0029	0.00095	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
1,3,5-Trimethylbenzene	ND	0.0029	0.00075	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
Vinyl Chloride	ND	0.014	0.00091	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
m+p Xylene	ND	0.0057	0.0019	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF
o-Xylene	ND	0.0029	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:01	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		9/21/22 8:01
Toluene-d8	97.2	70-130		9/21/22 8:01
4-Bromofluorobenzene	97.4	70-130		9/21/22 8:01

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Acetophenone	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Aniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Benzidine	ND	0.75	mg/Kg dry	1	V-04, V-35	SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Benzo(a)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Benzo(a)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Benzo(b)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Benzoic Acid	ND	1.1	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Bis(2-chloroethoxy)methane	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Bis(2-chloroethyl)ether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Bis(2-chloroisopropyl)ether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.39	mg/Kg dry	1	V-20	SW-846 8270E	9/21/22	9/23/22 18:47	BGL
4-Bromophenylphenylether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Butylbenzylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Carbazole	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
4-Chloroaniline	ND	0.75	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
4-Chloro-3-methylphenol	ND	0.75	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2-Chloronaphthalene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2-Chlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
4-Chlorophenylphenylether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Chrysene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Dibenzofuran	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Di-n-butylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
1,2-Dichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
1,3-Dichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
1,4-Dichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
3,3-Dichlorobenzidine	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2,4-Dichlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Diethylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2,4-Dimethylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Dimethylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
4,6-Dinitro-2-methylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2,4-Dinitrophenol	ND	0.75	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2,4-Dinitrotoluene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2,6-Dinitrotoluene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Di-n-octylphthalate	ND	0.39	mg/Kg dry	1	V-20	SW-846 8270E	9/21/22	9/23/22 18:47	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Hexachlorobutadiene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Hexachlorocyclopentadiene	ND	0.39	mg/Kg dry	1	L-04, V-05	SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Hexachloroethane	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Isophorone	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
1-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2-Methylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
3/4-Methylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2-Nitroaniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
3-Nitroaniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
4-Nitroaniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Nitrobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2-Nitrophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
4-Nitrophenol	ND	0.75	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
N-Nitrosodimethylamine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
N-Nitrosodi-n-propylamine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Pentachloronitrobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Pentachlorophenol	ND	0.39	mg/Kg dry	1	V-05	SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Phenanthrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Phenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
Pyridine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
1,2,4-Trichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2,4,5-Trichlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL
2,4,6-Trichlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/23/22 18:47	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	54.9	30-130		9/23/22 18:47
Phenol-d6	62.3	30-130		9/23/22 18:47
Nitrobenzene-d5	78.9	30-130		9/23/22 18:47
2-Fluorobiphenyl	62.1	30-130		9/23/22 18:47
2,4,6-Tribromophenol	66.5	30-130		9/23/22 18:47
p-Terphenyl-d14	71.8	30-130		9/23/22 18:47

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	270	95	mg/Kg dry	10	O-06	SW-846 8015C	9/21/22	9/24/22 3:27	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
2-Fluorobiphenyl	82.3	40-140				9/24/22 3:27	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Beryllium	0.51	0.19	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Cadmium	ND	0.38	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Chromium	11	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Copper	5.7	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Lead	8.9	0.56	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Mercury	0.048	0.028	mg/Kg dry	1		SW-846 7471B	9/22/22	9/23/22 16:29	MJH
Nickel	7.7	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH
Silver	ND	0.38	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:52	ATP
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:52	ATP
Zinc	37	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:01	MJH

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Project Location: Theftford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-03

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.1		% Wt	1	H-09	SM 2540G	9/22/22	9/22/22 20:48	RWS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5-FD | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	0.061	0.11	0.010	mg/Kg dry	1	J	SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Acrylonitrile	ND	0.0065	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	0.00040	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Benzene	ND	0.0022	0.00060	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Bromobenzene	ND	0.0022	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Bromochloromethane	ND	0.0022	0.00095	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Bromodichloromethane	ND	0.0022	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Bromoform	ND	0.0022	0.00067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Bromomethane	ND	0.011	0.0018	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
2-Butanone (MEK)	ND	0.044	0.0062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	0.050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
n-Butylbenzene	ND	0.0022	0.00064	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
sec-Butylbenzene	ND	0.0022	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
tert-Butylbenzene	ND	0.0022	0.00084	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Carbon Disulfide	ND	0.011	0.0076	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Carbon Tetrachloride	ND	0.0022	0.00095	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Chlorobenzene	ND	0.0022	0.00064	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Chlorodibromomethane	ND	0.0011	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Chloroethane	ND	0.022	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Chloroform	ND	0.0044	0.00064	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Chloromethane	ND	0.011	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
2-Chlorotoluene	ND	0.0022	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
4-Chlorotoluene	ND	0.0022	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0044	0.00095	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	0.00073	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Dibromomethane	ND	0.0022	0.00079	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2-Dichlorobenzene	ND	0.0022	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,3-Dichlorobenzene	ND	0.0022	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,4-Dichlorobenzene	ND	0.0022	0.00058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
trans-1,4-Dichloro-2-butene	ND	0.0044	0.00079	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.022	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1-Dichloroethane	ND	0.0022	0.00075	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2-Dichloroethane	ND	0.0022	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1-Dichloroethylene	ND	0.0044	0.00077	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
cis-1,2-Dichloroethylene	ND	0.0022	0.00061	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
trans-1,2-Dichloroethylene	ND	0.0022	0.00073	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2-Dichloropropane	ND	0.0022	0.00061	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,3-Dichloropropane	ND	0.0011	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
2,2-Dichloropropane	ND	0.0022	0.00090	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1-Dichloropropene	ND	0.0022	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
cis-1,3-Dichloropropene	ND	0.0011	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
trans-1,3-Dichloropropene	ND	0.0011	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Diethyl Ether	ND	0.022	0.00078	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF

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Project Location: Theftford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5-FD | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	0.00062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,4-Dioxane	ND	0.11	0.039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Ethylbenzene	ND	0.0022	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Hexachlorobutadiene	ND	0.0022	0.00080	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
2-Hexanone (MBK)	ND	0.022	0.0062	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Isopropylbenzene (Cumene)	ND	0.0022	0.00077	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0022	0.00061	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Methyl Acetate	ND	0.0022	0.0016	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0044	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Methyl Cyclohexane	ND	0.0022	0.00082	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Methylene Chloride	ND	0.022	0.0016	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.022	0.0045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Naphthalene	ND	0.0044	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
n-Propylbenzene	ND	0.0022	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Styrene	ND	0.0022	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1,1,2-Tetrachloroethane	ND	0.0022	0.00061	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Tetrachloroethylene	ND	0.0022	0.00072	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Tetrahydrofuran	ND	0.011	0.0037	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Toluene	ND	0.0022	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2,3-Trichlorobenzene	ND	0.0022	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2,4-Trichlorobenzene	ND	0.0022	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,3,5-Trichlorobenzene	ND	0.0022	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1,1-Trichloroethane	ND	0.0022	0.00086	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1,2-Trichloroethane	ND	0.0022	0.00050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Trichloroethylene	ND	0.0022	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2,3-Trichloropropane	ND	0.0022	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	0.00071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,2,4-Trimethylbenzene	ND	0.0022	0.00072	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
1,3,5-Trimethylbenzene	ND	0.0022	0.00057	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
Vinyl Chloride	ND	0.011	0.00070	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
m+p Xylene	ND	0.0044	0.0014	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF
o-Xylene	ND	0.0022	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 8:27	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		9/21/22 8:27
Toluene-d8	99.9	70-130		9/21/22 8:27
4-Bromofluorobenzene	101	70-130		9/21/22 8:27

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5-FD | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Acenaphthylene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Acetophenone	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Aniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Benzidine	ND	0.76	mg/Kg dry	1	V-04, V-35	SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Benzo(a)anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Benzo(a)pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Benzo(b)fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Benzo(g,h,i)perylene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Benzo(k)fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Benzoic Acid	ND	1.2	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Bis(2-chloroethoxy)methane	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Bis(2-chloroethyl)ether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Bis(2-chloroisopropyl)ether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
4-Bromophenylphenylether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Butylbenzylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Carbazole	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
4-Chloroaniline	ND	0.76	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
4-Chloro-3-methylphenol	ND	0.76	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2-Chloronaphthalene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2-Chlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
4-Chlorophenylphenylether	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Chrysene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Dibenz(a,h)anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Dibenzofuran	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Di-n-butylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
1,2-Dichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
1,3-Dichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
1,4-Dichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
3,3-Dichlorobenzidine	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2,4-Dichlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Diethylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2,4-Dimethylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Dimethylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
4,6-Dinitro-2-methylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2,4-Dinitrophenol	ND	0.76	mg/Kg dry	1	V-04	SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2,4-Dinitrotoluene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2,6-Dinitrotoluene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Di-n-octylphthalate	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Fluorene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5-FD | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Hexachlorobutadiene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Hexachlorocyclopentadiene	ND	0.39	mg/Kg dry	1	L-04, V-05	SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Hexachloroethane	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Isophorone	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
1-Methylnaphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2-Methylnaphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2-Methylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
3/4-Methylphenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Naphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2-Nitroaniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
3-Nitroaniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
4-Nitroaniline	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Nitrobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2-Nitrophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
4-Nitrophenol	ND	0.76	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
N-Nitrosodimethylamine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
N-Nitrosodi-n-propylamine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Pentachloronitrobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Pentachlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Phenanthrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Phenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
Pyridine	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
1,2,4-Trichlorobenzene	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2,4,5-Trichlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL
2,4,6-Trichlorophenol	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 12:57	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	44.1	30-130		9/26/22 12:57
Phenol-d6	48.8	30-130		9/26/22 12:57
Nitrobenzene-d5	72.9	30-130		9/26/22 12:57
2-Fluorobiphenyl	63.1	30-130		9/26/22 12:57
2,4,6-Tribromophenol	69.5	30-130		9/26/22 12:57
p-Terphenyl-d14	64.4	30-130		9/26/22 12:57

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5-FD | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-04

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	260	96	mg/Kg dry	10	O-06	SW-846 8015C	9/21/22	9/24/22 2:56	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual					
2-Fluorobiphenyl	89.8	40-140					9/24/22 2:56	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5-FD | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Beryllium	0.52	0.19	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Cadmium	ND	0.38	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Chromium	11	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Copper	5.6	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Lead	9.5	0.56	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Mercury	0.051	0.029	mg/Kg dry	1		SW-846 7471B	9/22/22	9/23/22 16:35	MJH
Nickel	8.0	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH
Silver	ND	0.38	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:58	ATP
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 18:58	ATP
Zinc	39	0.75	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:08	MJH

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-3-0.5-FD | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-04

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.7		% Wt	1	H-09	SM 2540G	9/22/22	9/22/22 20:48	RWS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-4-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	0.046	0.10	0.0093	mg/Kg dry	1	J	SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Acrylonitrile	ND	0.0061	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	0.00037	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Benzene	ND	0.0020	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Bromobenzene	ND	0.0020	0.00037	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Bromochloromethane	ND	0.0020	0.00089	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Bromodichloromethane	ND	0.0020	0.00050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Bromoform	ND	0.0020	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Bromomethane	ND	0.010	0.0017	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
2-Butanone (MEK)	ND	0.041	0.0058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
tert-Butyl Alcohol (TBA)	ND	0.10	0.047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
n-Butylbenzene	ND	0.0020	0.00060	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
sec-Butylbenzene	ND	0.0020	0.00097	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
tert-Butylbenzene	ND	0.0020	0.00079	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	0.00050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Carbon Disulfide	ND	0.010	0.0071	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Carbon Tetrachloride	ND	0.0020	0.00089	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Chlorobenzene	ND	0.0020	0.00060	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Chlorodibromomethane	ND	0.0010	0.00058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Chloroethane	ND	0.020	0.0013	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Chloroform	ND	0.0041	0.00060	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Chloromethane	ND	0.010	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
2-Chlorotoluene	ND	0.0020	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
4-Chlorotoluene	ND	0.0020	0.00042	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0041	0.00089	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Dibromomethane	ND	0.0020	0.00074	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2-Dichlorobenzene	ND	0.0020	0.00044	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,3-Dichlorobenzene	ND	0.0020	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,4-Dichlorobenzene	ND	0.0020	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
trans-1,4-Dichloro-2-butene	ND	0.0041	0.00074	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1-Dichloroethane	ND	0.0020	0.00070	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2-Dichloroethane	ND	0.0020	0.00067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1-Dichloroethylene	ND	0.0041	0.00072	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
cis-1,2-Dichloroethylene	ND	0.0020	0.00057	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
trans-1,2-Dichloroethylene	ND	0.0020	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2-Dichloropropane	ND	0.0020	0.00058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,3-Dichloropropane	ND	0.0010	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
2,2-Dichloropropane	ND	0.0020	0.00084	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1-Dichloropropene	ND	0.0020	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
cis-1,3-Dichloropropene	ND	0.0010	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
trans-1,3-Dichloropropene	ND	0.0010	0.00050	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Diethyl Ether	ND	0.020	0.00073	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF

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Project Location: Theftford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-4-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0010	0.00058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,4-Dioxane	ND	0.10	0.036	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Ethylbenzene	ND	0.0020	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Hexachlorobutadiene	ND	0.0020	0.00075	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
2-Hexanone (MBK)	ND	0.020	0.0058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Isopropylbenzene (Cumene)	ND	0.0020	0.00072	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	0.00057	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Methyl Acetate	ND	0.0020	0.0015	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0041	0.00037	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Methyl Cyclohexane	ND	0.0020	0.00076	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Methylene Chloride	ND	0.020	0.0015	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	0.0043	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Naphthalene	ND	0.0041	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
n-Propylbenzene	ND	0.0020	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Styrene	ND	0.0020	0.00042	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	0.00057	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Tetrachloroethylene	ND	0.0020	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Tetrahydrofuran	ND	0.010	0.0034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Toluene	ND	0.0020	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2,3-Trichlorobenzene	ND	0.0020	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2,4-Trichlorobenzene	ND	0.0020	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,3,5-Trichlorobenzene	ND	0.0020	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1,1-Trichloroethane	ND	0.0020	0.00081	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1,2-Trichloroethane	ND	0.0020	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Trichloroethylene	ND	0.0020	0.00067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2,3-Trichloropropane	ND	0.0020	0.0011	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	0.00067	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,2,4-Trimethylbenzene	ND	0.0020	0.00068	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
1,3,5-Trimethylbenzene	ND	0.0020	0.00054	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
Vinyl Chloride	ND	0.010	0.00065	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
m+p Xylene	ND	0.0041	0.0013	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF
o-Xylene	ND	0.0020	0.00044	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 9:43	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	106	70-130		9/21/22 9:43
Toluene-d8	99.0	70-130		9/21/22 9:43
4-Bromofluorobenzene	102	70-130		9/21/22 9:43

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-4-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-05

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Acetophenone	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Aniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Benzidine	ND	0.73	mg/Kg dry	1	V-04, V-35	SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Benzo(a)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Benzo(a)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Benzo(b)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Benzoic Acid	ND	1.1	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Bis(2-chloroethoxy)methane	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Bis(2-chloroethyl)ether	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Bis(2-chloroisopropyl)ether	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
4-Bromophenylphenylether	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Butylbenzylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Carbazole	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
4-Chloroaniline	ND	0.73	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
4-Chloro-3-methylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2-Chloronaphthalene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2-Chlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
4-Chlorophenylphenylether	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Chrysene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Dibenzofuran	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Di-n-butylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
1,2-Dichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
1,3-Dichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
1,4-Dichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
3,3-Dichlorobenzidine	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2,4-Dichlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Diethylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2,4-Dimethylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Dimethylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
4,6-Dinitro-2-methylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2,4-Dinitrophenol	ND	0.73	mg/Kg dry	1	V-04	SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2,4-Dinitrotoluene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2,6-Dinitrotoluene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Di-n-octylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-4-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-05

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Hexachlorobutadiene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Hexachlorocyclopentadiene	ND	0.37	mg/Kg dry	1	L-04, V-05	SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Hexachloroethane	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Isophorone	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
1-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2-Methylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
3/4-Methylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2-Nitroaniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
3-Nitroaniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
4-Nitroaniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Nitrobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2-Nitrophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
4-Nitrophenol	ND	0.73	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
N-Nitrosodimethylamine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
N-Nitrosodi-n-propylamine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Pentachloronitrobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Pentachlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Phenanthrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Phenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
Pyridine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
1,2,4-Trichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2,4,5-Trichlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL
2,4,6-Trichlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:20	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	52.6	30-130		9/26/22 13:20
Phenol-d6	56.9	30-130		9/26/22 13:20
Nitrobenzene-d5	82.3	30-130		9/26/22 13:20
2-Fluorobiphenyl	71.3	30-130		9/26/22 13:20
2,4,6-Tribromophenol	81.6	30-130		9/26/22 13:20
p-Terphenyl-d14	71.9	30-130		9/26/22 13:20

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-4-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-05

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	76	9.2	mg/Kg dry	1	O-06	SW-846 8015C	9/21/22	9/23/22 21:30	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorobiphenyl	70.0	40-140		9/23/22 21:30

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-4-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Arsenic	ND	3.5	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Beryllium	0.67	0.18	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Cadmium	ND	0.35	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Chromium	29	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Copper	14	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Lead	7.7	0.53	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Mercury	0.031	0.027	mg/Kg dry	1		SW-846 7471B	9/22/22	9/23/22 16:37	MJH
Nickel	20	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Selenium	ND	3.5	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH
Silver	ND	0.35	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 19:03	ATP
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 19:03	ATP
Zinc	29	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:14	MJH

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-4-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-05

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.9		% Wt	1	H-09	SM 2540G	9/22/22	9/22/22 20:48	RWS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-5-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	0.012	0.079	0.0072	mg/Kg dry	1	J	SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Acrylonitrile	ND	0.0047	0.00078	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00079	0.00029	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Benzene	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Bromobenzene	ND	0.0016	0.00029	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Bromochloromethane	ND	0.0016	0.00069	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Bromodichloromethane	ND	0.0016	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Bromoform	ND	0.0016	0.00049	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Bromomethane	ND	0.0079	0.0013	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
2-Butanone (MEK)	ND	0.032	0.0045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
tert-Butyl Alcohol (TBA)	ND	0.079	0.037	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
n-Butylbenzene	ND	0.0016	0.00046	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
sec-Butylbenzene	ND	0.0016	0.00076	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
tert-Butylbenzene	ND	0.0016	0.00061	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00079	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Carbon Disulfide	ND	0.0079	0.0055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Carbon Tetrachloride	ND	0.0016	0.00069	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Chlorobenzene	ND	0.0016	0.00047	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Chlorodibromomethane	ND	0.00079	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Chloroethane	ND	0.016	0.00098	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Chloroform	ND	0.0032	0.00046	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Chloromethane	ND	0.0079	0.00080	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
2-Chlorotoluene	ND	0.0016	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
4-Chlorotoluene	ND	0.0016	0.00033	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0032	0.00069	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2-Dibromoethane (EDB)	ND	0.00079	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Dibromomethane	ND	0.0016	0.00058	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2-Dichlorobenzene	ND	0.0016	0.00034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,3-Dichlorobenzene	ND	0.0016	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,4-Dichlorobenzene	ND	0.0016	0.00042	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
trans-1,4-Dichloro-2-butene	ND	0.0032	0.00057	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	0.00083	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1-Dichloroethane	ND	0.0016	0.00055	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2-Dichloroethane	ND	0.0016	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1-Dichloroethylene	ND	0.0032	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
cis-1,2-Dichloroethylene	ND	0.0016	0.00044	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
trans-1,2-Dichloroethylene	ND	0.0016	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2-Dichloropropane	ND	0.0016	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,3-Dichloropropane	ND	0.00079	0.00041	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
2,2-Dichloropropane	ND	0.0016	0.00065	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1-Dichloropropene	ND	0.0016	0.00077	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
cis-1,3-Dichloropropene	ND	0.00079	0.00040	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
trans-1,3-Dichloropropene	ND	0.00079	0.00039	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Diethyl Ether	ND	0.016	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-5-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00079	0.00045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,4-Dioxane	ND	0.079	0.028	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Ethylbenzene	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Hexachlorobutadiene	ND	0.0016	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
2-Hexanone (MBK)	ND	0.016	0.0045	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Isopropylbenzene (Cumene)	ND	0.0016	0.00056	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	0.00044	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Methyl Acetate	ND	0.0016	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0032	0.00028	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Methyl Cyclohexane	ND	0.0016	0.00059	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Methylene Chloride	ND	0.016	0.0012	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	0.0033	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Naphthalene	ND	0.0032	0.00043	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
n-Propylbenzene	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Styrene	ND	0.0016	0.00033	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	0.00044	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1,2,2-Tetrachloroethane	ND	0.00079	0.00041	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Tetrachloroethylene	ND	0.0016	0.00053	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Tetrahydrofuran	ND	0.0079	0.0027	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Toluene	ND	0.0016	0.00041	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2,3-Trichlorobenzene	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2,4-Trichlorobenzene	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,3,5-Trichlorobenzene	ND	0.0016	0.00040	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1,1-Trichloroethane	ND	0.0016	0.00063	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1,2-Trichloroethane	ND	0.0016	0.00036	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Trichloroethylene	ND	0.0016	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0079	0.00038	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2,3-Trichloropropane	ND	0.0016	0.00083	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0079	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,2,4-Trimethylbenzene	ND	0.0016	0.00052	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
1,3,5-Trimethylbenzene	ND	0.0016	0.00042	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
Vinyl Chloride	ND	0.0079	0.00051	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
m+p Xylene	ND	0.0032	0.0010	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF
o-Xylene	ND	0.0016	0.00034	mg/Kg dry	1		SW-846 8260D	9/21/22	9/21/22 10:08	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	109	70-130		9/21/22 10:08
Toluene-d8	99.1	70-130		9/21/22 10:08
4-Bromofluorobenzene	101	70-130		9/21/22 10:08

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Project Location: Theftford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-5-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Acenaphthylene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Acetophenone	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Aniline	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Benzidine	ND	0.71	mg/Kg dry	1	V-04, V-35	SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Benzo(a)anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Benzo(a)pyrene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Benzo(b)fluoranthene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Benzo(g,h,i)perylene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Benzo(k)fluoranthene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Benzoic Acid	ND	1.1	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Bis(2-chloroethoxy)methane	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Bis(2-chloroethyl)ether	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Bis(2-chloroisopropyl)ether	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
4-Bromophenylphenylether	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Butylbenzylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Carbazole	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
4-Chloroaniline	ND	0.71	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
4-Chloro-3-methylphenol	ND	0.71	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2-Chloronaphthalene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2-Chlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
4-Chlorophenylphenylether	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Chrysene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Dibenz(a,h)anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Dibenzofuran	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Di-n-butylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
1,2-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
1,3-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
1,4-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
3,3-Dichlorobenzidine	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2,4-Dichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Diethylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2,4-Dimethylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Dimethylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
4,6-Dinitro-2-methylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2,4-Dinitrophenol	ND	0.71	mg/Kg dry	1	V-04	SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2,4-Dinitrotoluene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2,6-Dinitrotoluene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Di-n-octylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Fluoranthene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Fluorene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-5-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Hexachlorobutadiene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Hexachlorocyclopentadiene	ND	0.36	mg/Kg dry	1	L-04, V-05	SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Hexachloroethane	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Isophorone	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
1-Methylnaphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2-Methylnaphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2-Methylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
3/4-Methylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2-Nitroaniline	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
3-Nitroaniline	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
4-Nitroaniline	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Nitrobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2-Nitrophenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
4-Nitrophenol	ND	0.71	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
N-Nitrosodimethylamine	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
N-Nitrosodi-n-propylamine	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Pentachloronitrobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Pentachlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Phenanthrene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Phenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Pyrene	ND	0.18	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
Pyridine	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
1,2,4-Trichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2,4,5-Trichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL
2,4,6-Trichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270E	9/21/22	9/26/22 13:42	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	63.4	30-130		9/26/22 13:42
Phenol-d6	67.5	30-130		9/26/22 13:42
Nitrobenzene-d5	98.6	30-130		9/26/22 13:42
2-Fluorobiphenyl	82.9	30-130		9/26/22 13:42
2,4,6-Tribromophenol	94.4	30-130		9/26/22 13:42
p-Terphenyl-d14	85.9	30-130		9/26/22 13:42

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-5-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-06

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	27	8.9	mg/Kg dry	1	O-06	SW-846 8015C	9/21/22	9/23/22 19:59	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual					
2-Fluorobiphenyl	88.9	40-140					9/23/22 19:59	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-5-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Arsenic	ND	3.5	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Beryllium	0.29	0.18	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Cadmium	ND	0.35	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Chromium	18	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Copper	13	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Lead	4.0	0.53	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Mercury	ND	0.027	mg/Kg dry	1		SW-846 7471B	9/22/22	9/23/22 16:39	MJH
Nickel	15	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Selenium	ND	3.5	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH
Silver	ND	0.35	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 19:09	ATP
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/23/22	10/1/22 19:09	ATP
Zinc	160	0.71	mg/Kg dry	1		SW-846 6010D	9/23/22	9/26/22 20:21	MJH

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: SB-5-0.5 | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-06

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.3		% Wt	1	H-09	SM 2540G	9/22/22	9/22/22 20:48	RWS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: Trip Blank | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-07

Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	0.0092	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Acrylonitrile	ND	0.0060	0.00099	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	0.00037	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Benzene	ND	0.0020	0.00055	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Bromobenzene	ND	0.0020	0.00036	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Bromochloromethane	ND	0.0020	0.00087	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Bromodichloromethane	ND	0.0020	0.00049	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Bromoform	ND	0.0020	0.00062	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Bromomethane	ND	0.010	0.0016	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
2-Butanone (MEK)	ND	0.040	0.0057	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
tert-Butyl Alcohol (TBA)	ND	0.10	0.046	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
n-Butylbenzene	ND	0.0020	0.00059	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
sec-Butylbenzene	ND	0.0020	0.00096	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
tert-Butylbenzene	ND	0.0020	0.00077	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	0.00049	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Carbon Disulfide	ND	0.010	0.0070	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Carbon Tetrachloride	ND	0.0020	0.00087	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Chlorobenzene	ND	0.0020	0.00059	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Chlorodibromomethane	ND	0.0010	0.00057	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Chloroethane	ND	0.020	0.0012	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Chloroform	ND	0.0040	0.00059	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Chloromethane	ND	0.010	0.0010	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
2-Chlorotoluene	ND	0.0020	0.00050	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
4-Chlorotoluene	ND	0.0020	0.00041	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0040	0.00087	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	0.00067	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Dibromomethane	ND	0.0020	0.00073	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2-Dichlorobenzene	ND	0.0020	0.00044	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,3-Dichlorobenzene	ND	0.0020	0.00050	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,4-Dichlorobenzene	ND	0.0020	0.00053	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
trans-1,4-Dichloro-2-butene	ND	0.0040	0.00073	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	0.0011	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1-Dichloroethane	ND	0.0020	0.00069	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2-Dichloroethane	ND	0.0020	0.00066	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1-Dichloroethylene	ND	0.0040	0.00071	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
cis-1,2-Dichloroethylene	ND	0.0020	0.00056	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
trans-1,2-Dichloroethylene	ND	0.0020	0.00067	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2-Dichloropropane	ND	0.0020	0.00056	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,3-Dichloropropane	ND	0.0010	0.00052	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
2,2-Dichloropropane	ND	0.0020	0.00082	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1-Dichloropropene	ND	0.0020	0.00098	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
cis-1,3-Dichloropropene	ND	0.0010	0.00051	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
trans-1,3-Dichloropropene	ND	0.0010	0.00050	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Diethyl Ether	ND	0.020	0.00071	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF

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Project Location: Theftford, VT | Sample Description: | Work Order: 22I1103

Date Received: 9/20/2022

Field Sample #: Trip Blank | Sampled: 9/14/2022 00:00

Sample ID: 22I1103-07

Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0010	0.00057	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,4-Dioxane	ND	0.10	0.035	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Ethylbenzene	ND	0.0020	0.00054	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Hexachlorobutadiene	ND	0.0020	0.00074	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
2-Hexanone (MBK)	ND	0.020	0.0057	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Isopropylbenzene (Cumene)	ND	0.0020	0.00071	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	0.00056	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Methyl Acetate	ND	0.0020	0.0015	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	0.00036	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Methyl Cyclohexane	ND	0.0020	0.00075	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Methylene Chloride	ND	0.020	0.0015	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	0.0042	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Naphthalene	ND	0.0040	0.00054	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
n-Propylbenzene	ND	0.0020	0.00048	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Styrene	ND	0.0020	0.00041	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	0.00056	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	0.00052	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Tetrachloroethylene	ND	0.0020	0.00066	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Tetrahydrofuran	ND	0.010	0.0034	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Toluene	ND	0.0020	0.00052	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2,3-Trichlorobenzene	ND	0.0020	0.00054	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2,4-Trichlorobenzene	ND	0.0020	0.00048	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,3,5-Trichlorobenzene	ND	0.0020	0.00050	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1,1-Trichloroethane	ND	0.0020	0.00080	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1,2-Trichloroethane	ND	0.0020	0.00046	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Trichloroethylene	ND	0.0020	0.00066	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	0.00048	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2,3-Trichloropropane	ND	0.0020	0.0010	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	0.00066	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,2,4-Trimethylbenzene	ND	0.0020	0.00066	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
1,3,5-Trimethylbenzene	ND	0.0020	0.00053	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
Vinyl Chloride	ND	0.010	0.00064	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
m+p Xylene	ND	0.0040	0.0013	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF
o-Xylene	ND	0.0020	0.00043	mg/Kg wet	1		SW-846 8260D	9/21/22	9/21/22 10:33	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	106	70-130		9/21/22 10:33
Toluene-d8	99.2	70-130		9/21/22 10:33
4-Bromofluorobenzene	100	70-130		9/21/22 10:33

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Sample Extraction Data

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

Lab Number [Field ID]	Batch	Date
22I1103-01 [SB-1-0.5]	B317846	09/22/22
22I1103-02 [SB-2-0.5]	B317846	09/22/22
22I1103-03 [SB-3-0.5]	B317846	09/22/22
22I1103-04 [SB-3-0.5-FD]	B317846	09/22/22
22I1103-05 [SB-4-0.5]	B317846	09/22/22
22I1103-06 [SB-5-0.5]	B317846	09/22/22

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

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I1103-01 [SB-1-0.5]	B317958	1.60	50.0	09/23/22
22I1103-02 [SB-2-0.5]	B317958	1.57	50.0	09/23/22
22I1103-03 [SB-3-0.5]	B317958	1.51	50.0	09/23/22
22I1103-04 [SB-3-0.5-FD]	B317958	1.53	50.0	09/23/22
22I1103-05 [SB-4-0.5]	B317958	1.56	50.0	09/23/22
22I1103-06 [SB-5-0.5]	B317958	1.51	50.0	09/23/22

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I1103-01 [SB-1-0.5]	B317748	0.611	50.0	09/22/22
22I1103-02 [SB-2-0.5]	B317748	0.591	50.0	09/22/22
22I1103-03 [SB-3-0.5]	B317748	0.618	50.0	09/22/22
22I1103-04 [SB-3-0.5-FD]	B317748	0.601	50.0	09/22/22
22I1103-05 [SB-4-0.5]	B317748	0.609	50.0	09/22/22
22I1103-06 [SB-5-0.5]	B317748	0.594	50.0	09/22/22

Prep Method: SW-846 3546 **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I1103-01 [SB-1-0.5]	B317737	30.0	1.00	09/21/22
22I1103-02 [SB-2-0.5]	B317737	30.0	1.00	09/21/22
22I1103-03 [SB-3-0.5]	B317737	30.0	1.00	09/21/22
22I1103-04 [SB-3-0.5-FD]	B317737	30.0	1.00	09/21/22
22I1103-05 [SB-4-0.5]	B317737	30.0	1.00	09/21/22
22I1103-06 [SB-5-0.5]	B317737	30.0	1.00	09/21/22

Prep Method: SW-846 5035 **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I1103-01 [SB-1-0.5]	B317756	5.96	10.0	09/21/22
22I1103-02 [SB-2-0.5]	B317756	6.18	10.0	09/21/22
22I1103-03 [SB-3-0.5]	B317756	3.97	10.0	09/21/22
22I1103-04 [SB-3-0.5-FD]	B317756	5.30	10.0	09/21/22
22I1103-05 [SB-4-0.5]	B317756	5.40	10.0	09/21/22
22I1103-06 [SB-5-0.5]	B317756	6.77	10.0	09/21/22
22I1103-07 [Trip Blank]	B317756	5.00	10.0	09/21/22

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Sample Extraction Data

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22I1103-01 [SB-1-0.5]	B317736	30.0	1.00	09/21/22
22I1103-02 [SB-2-0.5]	B317736	30.0	1.00	09/21/22
22I1103-03 [SB-3-0.5]	B317736	30.0	1.00	09/21/22
22I1103-04 [SB-3-0.5-FD]	B317736	30.0	1.00	09/21/22
22I1103-05 [SB-4-0.5]	B317736	30.0	1.00	09/21/22
22I1103-06 [SB-5-0.5]	B317736	30.0	1.00	09/21/22

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B317756 - SW-846 5035										
Blank (B317756-BLK1)				Prepared & Analyzed: 09/21/22						
Acetone	ND	0.10	mg/Kg wet							
Acrylonitrile	ND	0.0060	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.10	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.010	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
Cyclohexane	ND	0.010	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B317756 - SW-846 5035											
Blank (B317756-BLK1)				Prepared & Analyzed: 09/21/22							
Methyl Acetate	ND	0.0020	mg/Kg wet								
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet								
Methyl Cyclohexane	ND	0.0020	mg/Kg wet								
Methylene Chloride	ND	0.020	mg/Kg wet								
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet								
Naphthalene	ND	0.0040	mg/Kg wet								
n-Propylbenzene	ND	0.0020	mg/Kg wet								
Styrene	ND	0.0020	mg/Kg wet								
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Xylenes (total)	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0506*		mg/Kg wet	0.0500		101	70-130				
Surrogate: Toluene-d8	*0.0499*		mg/Kg wet	0.0500		99.7	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0496*		mg/Kg wet	0.0500		99.1	70-130				
LCS (B317756-BS1)				Prepared & Analyzed: 09/21/22							
Acetone	0.248	0.10	mg/Kg wet	0.200		124	70-160			V-20	†
Acrylonitrile	0.0253	0.0060	mg/Kg wet	0.0200		127	70-130			V-20	
tert-Amyl Methyl Ether (TAME)	0.0206	0.0010	mg/Kg wet	0.0200		103	70-130				
Benzene	0.0197	0.0020	mg/Kg wet	0.0200		98.7	70-130				
Bromobenzene	0.0194	0.0020	mg/Kg wet	0.0200		96.8	70-130				
Bromochloromethane	0.0230	0.0020	mg/Kg wet	0.0200		115	70-130				
Bromodichloromethane	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130				
Bromoform	0.0176	0.0020	mg/Kg wet	0.0200		87.9	70-130				
Bromomethane	0.0237	0.010	mg/Kg wet	0.0200		118	40-130				†
2-Butanone (MEK)	0.226	0.040	mg/Kg wet	0.200		113	70-160				†
tert-Butyl Alcohol (TBA)	0.187	0.10	mg/Kg wet	0.200		93.7	40-130				†
n-Butylbenzene	0.0184	0.0020	mg/Kg wet	0.0200		92.2	70-130				
sec-Butylbenzene	0.0186	0.0020	mg/Kg wet	0.0200		93.1	70-130				
tert-Butylbenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.7	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0213	0.0010	mg/Kg wet	0.0200		107	70-130				
Carbon Disulfide	0.224	0.010	mg/Kg wet	0.200		112	70-130				
Carbon Tetrachloride	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130				
Chlorobenzene	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130				
Chlorodibromomethane	0.0211	0.0010	mg/Kg wet	0.0200		106	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B317756 - SW-846 5035											
LCS (B317756-BS1)				Prepared & Analyzed: 09/21/22							
Chloroethane	0.0226	0.020	mg/Kg wet	0.0200		113	70-130				
Chloroform	0.0207	0.0040	mg/Kg wet	0.0200		103	70-130				
Chloromethane	0.0226	0.010	mg/Kg wet	0.0200		113	70-130				
2-Chlorotoluene	0.0193	0.0020	mg/Kg wet	0.0200		96.7	70-130				
4-Chlorotoluene	0.0195	0.0020	mg/Kg wet	0.0200		97.5	70-130				
Cyclohexane	0.0209	0.010	mg/Kg wet	0.0200		104	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0171	0.0020	mg/Kg wet	0.0200		85.4	70-130				
1,2-Dibromoethane (EDB)	0.0215	0.0010	mg/Kg wet	0.0200		108	70-130				
Dibromomethane	0.0227	0.0020	mg/Kg wet	0.0200		114	70-130				
1,2-Dichlorobenzene	0.0197	0.0020	mg/Kg wet	0.0200		98.5	70-130				
1,3-Dichlorobenzene	0.0194	0.0020	mg/Kg wet	0.0200		97.2	70-130				
1,4-Dichlorobenzene	0.0194	0.0020	mg/Kg wet	0.0200		96.9	70-130				
trans-1,4-Dichloro-2-butene	0.0198	0.0040	mg/Kg wet	0.0200		99.1	70-130				
Dichlorodifluoromethane (Freon 12)	0.0192	0.020	mg/Kg wet	0.0200		95.8	40-160			J	†
1,1-Dichloroethane	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
1,2-Dichloroethane	0.0225	0.0020	mg/Kg wet	0.0200		112	70-130				
1,1-Dichloroethylene	0.0210	0.0040	mg/Kg wet	0.0200		105	70-130				
cis-1,2-Dichloroethylene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
trans-1,2-Dichloroethylene	0.0221	0.0020	mg/Kg wet	0.0200		110	70-130				
1,2-Dichloropropane	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130				
1,3-Dichloropropane	0.0218	0.0010	mg/Kg wet	0.0200		109	70-130				
2,2-Dichloropropane	0.0197	0.0020	mg/Kg wet	0.0200		98.3	70-130				
1,1-Dichloropropene	0.0195	0.0020	mg/Kg wet	0.0200		97.6	70-130				
cis-1,3-Dichloropropene	0.0215	0.0010	mg/Kg wet	0.0200		108	70-130				
trans-1,3-Dichloropropene	0.0207	0.0010	mg/Kg wet	0.0200		104	70-130				
Diethyl Ether	0.0220	0.020	mg/Kg wet	0.0200		110	70-130				
Diisopropyl Ether (DIPE)	0.0232	0.0010	mg/Kg wet	0.0200		116	70-130				
1,4-Dioxane	0.185	0.10	mg/Kg wet	0.200		92.5	40-160				†
Ethylbenzene	0.0198	0.0020	mg/Kg wet	0.0200		99.1	70-130				
Hexachlorobutadiene	0.0162	0.0020	mg/Kg wet	0.0200		80.8	70-160				
2-Hexanone (MBK)	0.216	0.020	mg/Kg wet	0.200		108	70-160				†
Isopropylbenzene (Cumene)	0.0194	0.0020	mg/Kg wet	0.0200		96.8	70-130				
p-Isopropyltoluene (p-Cymene)	0.0187	0.0020	mg/Kg wet	0.0200		93.3	70-130				
Methyl Acetate	0.0246	0.0020	mg/Kg wet	0.0200		123	70-130			V-20	
Methyl tert-Butyl Ether (MTBE)	0.0205	0.0040	mg/Kg wet	0.0200		103	70-130				
Methyl Cyclohexane	0.0199	0.0020	mg/Kg wet	0.0200		99.7	70-130				
Methylene Chloride	0.0240	0.020	mg/Kg wet	0.0200		120	40-160			V-20	†
4-Methyl-2-pentanone (MIBK)	0.218	0.020	mg/Kg wet	0.200		109	70-160				†
Naphthalene	0.0161	0.0040	mg/Kg wet	0.0200		80.7	40-130				†
n-Propylbenzene	0.0196	0.0020	mg/Kg wet	0.0200		97.8	70-130				
Styrene	0.0198	0.0020	mg/Kg wet	0.0200		99.2	70-130				
1,1,1,2-Tetrachloroethane	0.0193	0.0020	mg/Kg wet	0.0200		96.5	70-130				
1,1,2,2-Tetrachloroethane	0.0197	0.0010	mg/Kg wet	0.0200		98.4	70-130				
Tetrachloroethylene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130				
Tetrahydrofuran	0.0199	0.010	mg/Kg wet	0.0200		99.5	70-130				
Toluene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
1,2,3-Trichlorobenzene	0.0181	0.0020	mg/Kg wet	0.0200		90.5	70-130				
1,2,4-Trichlorobenzene	0.0170	0.0020	mg/Kg wet	0.0200		85.1	70-130				
1,3,5-Trichlorobenzene	0.0180	0.0020	mg/Kg wet	0.0200		89.8	70-130				
1,1,1-Trichloroethane	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130				
1,1,2-Trichloroethane	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130				
Trichloroethylene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B317756 - SW-846 5035												
LCS (B317756-BS1)				Prepared & Analyzed: 09/21/22								
Trichlorofluoromethane (Freon 11)	0.0216	0.010	mg/Kg wet	0.0200		108		70-130				
1,2,3-Trichloropropane	0.0207	0.0020	mg/Kg wet	0.0200		103		70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0218	0.010	mg/Kg wet	0.0200		109		70-130				
1,2,4-Trimethylbenzene	0.0182	0.0020	mg/Kg wet	0.0200		91.1		70-130				
1,3,5-Trimethylbenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.5		70-130				
Vinyl Chloride	0.0203	0.010	mg/Kg wet	0.0200		101		40-130				†
m+p Xylene	0.0391	0.0040	mg/Kg wet	0.0400		97.6		70-130				
o-Xylene	0.0193	0.0020	mg/Kg wet	0.0200		96.5		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0507*		mg/Kg wet	0.0500		101		70-130				
Surrogate: Toluene-d8	*0.0496*		mg/Kg wet	0.0500		99.2		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0510*		mg/Kg wet	0.0500		102		70-130				
LCS Dup (B317756-BSD1)				Prepared & Analyzed: 09/21/22								
Acetone	0.256	0.10	mg/Kg wet	0.200		128		70-160	3.24	25	V-20	†
Acrylonitrile	0.0262	0.0060	mg/Kg wet	0.0200		**131**	*	70-130	3.41	25	L-07, V-20	
tert-Amyl Methyl Ether (TAME)	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130	0.964	25		
Benzene	0.0195	0.0020	mg/Kg wet	0.0200		97.6		70-130	1.12	25		
Bromobenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.5		70-130	2.75	25		
Bromochloromethane	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130	3.55	25		
Bromodichloromethane	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130	4.25	25		
Bromoform	0.0183	0.0020	mg/Kg wet	0.0200		91.5		70-130	4.01	25		
Bromomethane	0.0242	0.010	mg/Kg wet	0.0200		121		40-130	2.09	25		†
2-Butanone (MEK)	0.240	0.040	mg/Kg wet	0.200		120		70-160	6.02	25		†
tert-Butyl Alcohol (TBA)	0.203	0.10	mg/Kg wet	0.200		101		40-130	7.88	25		†
n-Butylbenzene	0.0182	0.0020	mg/Kg wet	0.0200		91.0		70-130	1.31	25		
sec-Butylbenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.6		70-130	0.536	25		
tert-Butylbenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.3		70-160	2.77	25		†
tert-Butyl Ethyl Ether (TBEE)	0.0212	0.0010	mg/Kg wet	0.0200		106		70-130	0.753	25		
Carbon Disulfide	0.221	0.010	mg/Kg wet	0.200		110		70-130	1.30	25		
Carbon Tetrachloride	0.0203	0.0020	mg/Kg wet	0.0200		101		70-130	1.08	25		
Chlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		103		70-130	1.18	25		
Chlorodibromomethane	0.0207	0.0010	mg/Kg wet	0.0200		103		70-130	2.20	25		
Chloroethane	0.0223	0.020	mg/Kg wet	0.0200		111		70-130	1.52	25		
Chloroform	0.0205	0.0040	mg/Kg wet	0.0200		103		70-130	0.777	25		
Chloromethane	0.0225	0.010	mg/Kg wet	0.0200		112		70-130	0.444	25		
2-Chlorotoluene	0.0193	0.0020	mg/Kg wet	0.0200		96.6		70-130	0.103	25		
4-Chlorotoluene	0.0191	0.0020	mg/Kg wet	0.0200		95.6		70-130	1.97	25		
Cyclohexane	0.0207	0.010	mg/Kg wet	0.0200		104		70-130	0.577	25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0193	0.0020	mg/Kg wet	0.0200		96.6		70-130	12.3	25		
1,2-Dibromoethane (EDB)	0.0222	0.0010	mg/Kg wet	0.0200		111		70-130	3.20	25		
Dibromomethane	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130	0.353	25		
1,2-Dichlorobenzene	0.0196	0.0020	mg/Kg wet	0.0200		98.1		70-130	0.407	25		
1,3-Dichlorobenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.5		70-130	0.723	25		
1,4-Dichlorobenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.4		70-130	0.517	25		
trans-1,4-Dichloro-2-butene	0.0196	0.0040	mg/Kg wet	0.0200		98.2		70-130	0.912	25		
Dichlorodifluoromethane (Freon 12)	0.0186	0.020	mg/Kg wet	0.0200		93.1		40-160	2.86	25	J	†
1,1-Dichloroethane	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130	0.886	25		
1,2-Dichloroethane	0.0229	0.0020	mg/Kg wet	0.0200		114		70-130	1.85	25		
1,1-Dichloroethylene	0.0206	0.0040	mg/Kg wet	0.0200		103		70-130	2.11	25		
cis-1,2-Dichloroethylene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130	1.94	25		
trans-1,2-Dichloroethylene	0.0224	0.0020	mg/Kg wet	0.0200		112		70-130	1.44	25		
1,2-Dichloropropane	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130	0.864	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B317756 - SW-846 5035											
LCS Dup (B317756-BSD1)				Prepared & Analyzed: 09/21/22							
1,3-Dichloropropane	0.0213	0.0010	mg/Kg wet	0.0200		106	70-130	2.14	25		
2,2-Dichloropropane	0.0192	0.0020	mg/Kg wet	0.0200		96.2	70-130	2.16	25		
1,1-Dichloropropene	0.0194	0.0020	mg/Kg wet	0.0200		97.0	70-130	0.617	25		
cis-1,3-Dichloropropene	0.0216	0.0010	mg/Kg wet	0.0200		108	70-130	0.0928	25		
trans-1,3-Dichloropropene	0.0208	0.0010	mg/Kg wet	0.0200		104	70-130	0.289	25		
Diethyl Ether	0.0226	0.020	mg/Kg wet	0.0200		113	70-130	2.69	25		
Diisopropyl Ether (DIPE)	0.0231	0.0010	mg/Kg wet	0.0200		115	70-130	0.432	25		
1,4-Dioxane	0.221	0.10	mg/Kg wet	0.200		110	40-160	17.6	50		† ‡
Ethylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	2.10	25		
Hexachlorobutadiene	0.0162	0.0020	mg/Kg wet	0.0200		80.8	70-160	0.00	25		
2-Hexanone (MBK)	0.222	0.020	mg/Kg wet	0.200		111	70-160	2.88	25		†
Isopropylbenzene (Cumene)	0.0190	0.0020	mg/Kg wet	0.0200		95.2	70-130	1.67	25		
p-Isopropyltoluene (p-Cymene)	0.0186	0.0020	mg/Kg wet	0.0200		93.0	70-130	0.322	25		
Methyl Acetate	0.0241	0.0020	mg/Kg wet	0.0200		120	70-130	2.22	25	V-20	
Methyl tert-Butyl Ether (MTBE)	0.0206	0.0040	mg/Kg wet	0.0200		103	70-130	0.583	25		
Methyl Cyclohexane	0.0190	0.0020	mg/Kg wet	0.0200		94.9	70-130	4.93	25		
Methylene Chloride	0.0243	0.020	mg/Kg wet	0.0200		121	40-160	1.08	25	V-20	†
4-Methyl-2-pentanone (MIBK)	0.231	0.020	mg/Kg wet	0.200		115	70-160	5.68	25		†
Naphthalene	0.0171	0.0040	mg/Kg wet	0.0200		85.7	40-130	6.01	25		†
n-Propylbenzene	0.0198	0.0020	mg/Kg wet	0.0200		98.9	70-130	1.12	25		
Styrene	0.0197	0.0020	mg/Kg wet	0.0200		98.6	70-130	0.607	25		
1,1,1,2-Tetrachloroethane	0.0198	0.0020	mg/Kg wet	0.0200		99.1	70-130	2.66	25		
1,1,2,2-Tetrachloroethane	0.0207	0.0010	mg/Kg wet	0.0200		104	70-130	5.15	25		
Tetrachloroethylene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130	1.67	25		
Tetrahydrofuran	0.0199	0.010	mg/Kg wet	0.0200		99.7	70-130	0.201	25		
Toluene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130	1.78	25		
1,2,3-Trichlorobenzene	0.0175	0.0020	mg/Kg wet	0.0200		87.3	70-130	3.60	25		
1,2,4-Trichlorobenzene	0.0174	0.0020	mg/Kg wet	0.0200		86.8	70-130	1.98	25		
1,3,5-Trichlorobenzene	0.0178	0.0020	mg/Kg wet	0.0200		88.9	70-130	1.01	25		
1,1,1-Trichloroethane	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	0.595	25		
1,1,2-Trichloroethane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130	0.381	25		
Trichloroethylene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130	0.967	25		
Trichlorofluoromethane (Freon 11)	0.0207	0.010	mg/Kg wet	0.0200		103	70-130	4.54	25		
1,2,3-Trichloropropane	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130	5.27	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0217	0.010	mg/Kg wet	0.0200		108	70-130	0.552	25		
1,2,4-Trimethylbenzene	0.0184	0.0020	mg/Kg wet	0.0200		91.9	70-130	0.874	25		
1,3,5-Trimethylbenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.7	70-130	0.850	25		
Vinyl Chloride	0.0199	0.010	mg/Kg wet	0.0200		99.7	40-130	1.69	25		†
m+p Xylene	0.0393	0.0040	mg/Kg wet	0.0400		98.2	70-130	0.613	25		
o-Xylene	0.0196	0.0020	mg/Kg wet	0.0200		97.8	70-130	1.34	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0513*		mg/Kg wet	0.0500		103	70-130				
Surrogate: Toluene-d8	*0.0502*		mg/Kg wet	0.0500		100	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0509*		mg/Kg wet	0.0500		102	70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B317736 - SW-846 3546										
Blank (B317736-BLK1)				Prepared: 09/21/22 Analyzed: 09/22/22						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-04
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							V-04
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							V-05
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B317736 - SW-846 3546										
Blank (B317736-BLK1)				Prepared: 09/21/22 Analyzed: 09/22/22						
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
2-Nitroaniline	ND	0.34	mg/Kg wet							
3-Nitroaniline	ND	0.34	mg/Kg wet							
4-Nitroaniline	ND	0.34	mg/Kg wet							
Nitrobenzene	ND	0.34	mg/Kg wet							
2-Nitrophenol	ND	0.34	mg/Kg wet							
4-Nitrophenol	ND	0.66	mg/Kg wet							
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet							
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet							
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet							
Pentachloronitrobenzene	ND	0.34	mg/Kg wet							
Pentachlorophenol	ND	0.34	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Phenol	ND	0.34	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Pyridine	ND	0.34	mg/Kg wet							
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet							
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet							
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet							
Surrogate: 2-Fluorophenol	*4.41*		mg/Kg wet	6.67		66.2	30-130			
Surrogate: Phenol-d6	*4.75*		mg/Kg wet	6.67		71.3	30-130			
Surrogate: Nitrobenzene-d5	*3.43*		mg/Kg wet	3.33		103	30-130			
Surrogate: 2-Fluorobiphenyl	*2.85*		mg/Kg wet	3.33		85.4	30-130			
Surrogate: 2,4,6-Tribromophenol	*6.60*		mg/Kg wet	6.67		99.0	30-130			
Surrogate: p-Terphenyl-d14	*2.89*		mg/Kg wet	3.33		86.7	30-130			
LCS (B317736-BS1)				Prepared: 09/21/22 Analyzed: 09/22/22						
Acenaphthene	1.10	0.17	mg/Kg wet	1.67		65.8	40-140			
Acenaphthylene	1.20	0.17	mg/Kg wet	1.67		71.8	40-140			
Acetophenone	1.09	0.34	mg/Kg wet	1.67		65.6	40-140			
Aniline	0.994	0.34	mg/Kg wet	1.67		59.6	10-140			†
Anthracene	1.24	0.17	mg/Kg wet	1.67		74.4	40-140			
Benzidine	2.11	0.66	mg/Kg wet	1.67		126	40-140			V-04
Benzo(a)anthracene	1.20	0.17	mg/Kg wet	1.67		72.3	40-140			
Benzo(a)pyrene	1.17	0.17	mg/Kg wet	1.67		70.0	40-140			
Benzo(b)fluoranthene	1.22	0.17	mg/Kg wet	1.67		73.0	40-140			
Benzo(g,h,i)perylene	0.988	0.17	mg/Kg wet	1.67		59.3	40-140			
Benzo(k)fluoranthene	1.30	0.17	mg/Kg wet	1.67		78.0	40-140			
Benzoic Acid	0.950	1.0	mg/Kg wet	1.67		57.0	30-130			
Bis(2-chloroethoxy)methane	1.19	0.34	mg/Kg wet	1.67		71.4	40-140			
Bis(2-chloroethyl)ether	1.08	0.34	mg/Kg wet	1.67		65.1	40-140			
Bis(2-chloroisopropyl)ether	1.29	0.34	mg/Kg wet	1.67		77.4	40-140			
Bis(2-Ethylhexyl)phthalate	1.17	0.34	mg/Kg wet	1.67		70.3	40-140			
4-Bromophenylphenylether	1.28	0.34	mg/Kg wet	1.67		76.9	40-140			
Butylbenzylphthalate	1.14	0.34	mg/Kg wet	1.67		68.6	40-140			
Carbazole	1.23	0.17	mg/Kg wet	1.67		73.8	40-140			
4-Chloroaniline	0.932	0.66	mg/Kg wet	1.67		55.9	10-140			†
4-Chloro-3-methylphenol	1.33	0.66	mg/Kg wet	1.67		79.5	30-130			
2-Chloronaphthalene	1.04	0.34	mg/Kg wet	1.67		62.2	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B317736 - SW-846 3546												
LCS (B317736-BS1)				Prepared: 09/21/22 Analyzed: 09/22/22								
2-Chlorophenol	1.07	0.34	mg/Kg wet	1.67		64.4		30-130				
4-Chlorophenylphenylether	1.35	0.34	mg/Kg wet	1.67		81.0		40-140				
Chrysene	1.18	0.17	mg/Kg wet	1.67		70.9		40-140				
Dibenz(a,h)anthracene	1.04	0.17	mg/Kg wet	1.67		62.5		40-140				
Dibenzofuran	1.28	0.34	mg/Kg wet	1.67		76.7		40-140				
Di-n-butylphthalate	1.26	0.34	mg/Kg wet	1.67		75.8		40-140				
1,2-Dichlorobenzene	0.994	0.34	mg/Kg wet	1.67		59.6		40-140				
1,3-Dichlorobenzene	0.933	0.34	mg/Kg wet	1.67		56.0		40-140				
1,4-Dichlorobenzene	0.962	0.34	mg/Kg wet	1.67		57.7		40-140				
3,3-Dichlorobenzidine	0.990	0.17	mg/Kg wet	1.67		59.4		20-140				†
2,4-Dichlorophenol	1.25	0.34	mg/Kg wet	1.67		75.1		30-130				
Diethylphthalate	1.33	0.34	mg/Kg wet	1.67		79.9		40-140				
2,4-Dimethylphenol	1.30	0.34	mg/Kg wet	1.67		78.3		30-130				
Dimethylphthalate	1.33	0.34	mg/Kg wet	1.67		79.9		40-140				
4,6-Dinitro-2-methylphenol	1.24	0.34	mg/Kg wet	1.67		74.5		30-130				
2,4-Dinitrophenol	0.820	0.66	mg/Kg wet	1.67		49.2		30-130			V-04	
2,4-Dinitrotoluene	1.32	0.34	mg/Kg wet	1.67		79.3		40-140				
2,6-Dinitrotoluene	1.32	0.34	mg/Kg wet	1.67		79.2		40-140				
Di-n-octylphthalate	1.11	0.34	mg/Kg wet	1.67		66.6		40-140				
1,2-Diphenylhydrazine/Azobenzene	1.13	0.34	mg/Kg wet	1.67		67.8		40-140				
Fluoranthene	1.30	0.17	mg/Kg wet	1.67		78.2		40-140				
Fluorene	1.29	0.17	mg/Kg wet	1.67		77.4		40-140				
Hexachlorobenzene	1.33	0.34	mg/Kg wet	1.67		80.0		40-140				
Hexachlorobutadiene	1.18	0.34	mg/Kg wet	1.67		70.6		40-140				
Hexachlorocyclopentadiene	0.425	0.34	mg/Kg wet	1.67		**25.5**	*	40-140			L-04, V-05	
Hexachloroethane	0.935	0.34	mg/Kg wet	1.67		56.1		40-140				
Indeno(1,2,3-cd)pyrene	0.903	0.17	mg/Kg wet	1.67		54.2		40-140				
Isophorone	1.26	0.34	mg/Kg wet	1.67		75.6		40-140				
1-Methylnaphthalene	1.04	0.17	mg/Kg wet	1.67		62.7		40-140				
2-Methylnaphthalene	1.24	0.17	mg/Kg wet	1.67		74.2		40-140				
2-Methylphenol	1.13	0.34	mg/Kg wet	1.67		67.7		30-130				
3/4-Methylphenol	1.19	0.34	mg/Kg wet	1.67		71.6		30-130				
Naphthalene	1.16	0.17	mg/Kg wet	1.67		69.8		40-140				
2-Nitroaniline	1.21	0.34	mg/Kg wet	1.67		72.8		40-140				
3-Nitroaniline	1.18	0.34	mg/Kg wet	1.67		71.0		30-140				†
4-Nitroaniline	1.19	0.34	mg/Kg wet	1.67		71.4		40-140				
Nitrobenzene	1.13	0.34	mg/Kg wet	1.67		67.7		40-140				
2-Nitrophenol	1.21	0.34	mg/Kg wet	1.67		72.8		30-130				
4-Nitrophenol	1.25	0.66	mg/Kg wet	1.67		74.8		30-130				
N-Nitrosodimethylamine	1.07	0.34	mg/Kg wet	1.67		64.2		40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.25	0.34	mg/Kg wet	1.67		75.3		40-140				
N-Nitrosodi-n-propylamine	1.24	0.34	mg/Kg wet	1.67		74.4		40-140				
Pentachloronitrobenzene	1.44	0.34	mg/Kg wet	1.67		86.6		40-140				
Pentachlorophenol	0.935	0.34	mg/Kg wet	1.67		56.1		30-130				
Phenanthrene	1.23	0.17	mg/Kg wet	1.67		73.8		40-140				
Phenol	1.10	0.34	mg/Kg wet	1.67		66.2		30-130				
Pyrene	1.15	0.17	mg/Kg wet	1.67		69.0		40-140				
Pyridine	0.643	0.34	mg/Kg wet	1.67		38.6		30-140				†
1,2,4,5-Tetrachlorobenzene	1.18	0.34	mg/Kg wet	1.67		71.0		40-140				
1,2,4-Trichlorobenzene	1.12	0.34	mg/Kg wet	1.67		67.5		40-140				
2,4,5-Trichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.4		30-130				
2,4,6-Trichlorophenol	1.25	0.34	mg/Kg wet	1.67		75.2		30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B317736 - SW-846 3546											
LCS (B317736-BS1)				Prepared: 09/21/22 Analyzed: 09/22/22							
Surrogate: 2-Fluorophenol	*4.37*		mg/Kg wet	6.67		65.5	30-130				
Surrogate: Phenol-d6	*4.68*		mg/Kg wet	6.67		70.2	30-130				
Surrogate: Nitrobenzene-d5	*3.40*		mg/Kg wet	3.33		102	30-130				
Surrogate: 2-Fluorobiphenyl	*2.84*		mg/Kg wet	3.33		85.1	30-130				
Surrogate: 2,4,6-Tribromophenol	*6.41*		mg/Kg wet	6.67		96.1	30-130				
Surrogate: p-Terphenyl-d14	*2.81*		mg/Kg wet	3.33		84.2	30-130				
LCS Dup (B317736-BSD1)				Prepared: 09/21/22 Analyzed: 09/22/22							
Acenaphthene	1.12	0.17	mg/Kg wet	1.67		67.0	40-140	1.78	30		
Acenaphthylene	1.21	0.17	mg/Kg wet	1.67		72.8	40-140	1.30	30		
Acetophenone	1.10	0.34	mg/Kg wet	1.67		65.9	40-140	0.487	30		
Aniline	1.11	0.34	mg/Kg wet	1.67		66.5	10-140	10.9	50		† ‡
Anthracene	1.26	0.17	mg/Kg wet	1.67		75.4	40-140	1.34	30		
Benzidine	2.57	0.66	mg/Kg wet	1.67		**154** *	40-140	19.8	30	L-07, V-04	
Benzo(a)anthracene	1.23	0.17	mg/Kg wet	1.67		73.8	40-140	2.03	30		
Benzo(a)pyrene	1.17	0.17	mg/Kg wet	1.67		70.1	40-140	0.0856	30		
Benzo(b)fluoranthene	1.21	0.17	mg/Kg wet	1.67		72.8	40-140	0.220	30		
Benzo(g,h,i)perylene	0.995	0.17	mg/Kg wet	1.67		59.7	40-140	0.740	30		
Benzo(k)fluoranthene	1.28	0.17	mg/Kg wet	1.67		76.7	40-140	1.71	30		
Benzoic Acid	0.933	1.0	mg/Kg wet	1.67		56.0	30-130	1.81	50		‡
Bis(2-chloroethoxy)methane	1.16	0.34	mg/Kg wet	1.67		69.8	40-140	2.21	30		
Bis(2-chloroethyl)ether	1.08	0.34	mg/Kg wet	1.67		64.7	40-140	0.555	30		
Bis(2-chloroisopropyl)ether	1.26	0.34	mg/Kg wet	1.67		75.7	40-140	2.19	30		
Bis(2-Ethylhexyl)phthalate	1.17	0.34	mg/Kg wet	1.67		70.5	40-140	0.227	30		
4-Bromophenylphenylether	1.34	0.34	mg/Kg wet	1.67		80.6	40-140	4.75	30		
Butylbenzylphthalate	1.16	0.34	mg/Kg wet	1.67		69.5	40-140	1.19	30		
Carbazole	1.25	0.17	mg/Kg wet	1.67		74.7	40-140	1.18	30		
4-Chloroaniline	1.07	0.66	mg/Kg wet	1.67		64.0	10-140	13.4	30		†
4-Chloro-3-methylphenol	1.34	0.66	mg/Kg wet	1.67		80.3	30-130	0.976	30		
2-Chloronaphthalene	1.05	0.34	mg/Kg wet	1.67		62.9	40-140	1.06	30		
2-Chlorophenol	1.08	0.34	mg/Kg wet	1.67		64.8	30-130	0.620	30		
4-Chlorophenylphenylether	1.36	0.34	mg/Kg wet	1.67		81.7	40-140	0.909	30		
Chrysene	1.20	0.17	mg/Kg wet	1.67		71.9	40-140	1.34	30		
Dibenz(a,h)anthracene	1.06	0.17	mg/Kg wet	1.67		63.8	40-140	2.09	30		
Dibenzofuran	1.30	0.34	mg/Kg wet	1.67		77.9	40-140	1.47	30		
Di-n-butylphthalate	1.26	0.34	mg/Kg wet	1.67		75.9	40-140	0.132	30		
1,2-Dichlorobenzene	1.02	0.34	mg/Kg wet	1.67		61.3	40-140	2.81	30		
1,3-Dichlorobenzene	0.973	0.34	mg/Kg wet	1.67		58.4	40-140	4.23	30		
1,4-Dichlorobenzene	0.997	0.34	mg/Kg wet	1.67		59.8	40-140	3.54	30		
3,3-Dichlorobenzidine	1.13	0.17	mg/Kg wet	1.67		67.6	20-140	12.9	50		† ‡
2,4-Dichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.6	30-130	0.664	30		
Diethylphthalate	1.34	0.34	mg/Kg wet	1.67		80.3	40-140	0.424	30		
2,4-Dimethylphenol	1.30	0.34	mg/Kg wet	1.67		77.7	30-130	0.718	30		
Dimethylphthalate	1.36	0.34	mg/Kg wet	1.67		81.4	40-140	1.81	30		
4,6-Dinitro-2-methylphenol	1.25	0.34	mg/Kg wet	1.67		75.1	30-130	0.749	30		
2,4-Dinitrophenol	0.855	0.66	mg/Kg wet	1.67		51.3	30-130	4.18	30	V-04	
2,4-Dinitrotoluene	1.33	0.34	mg/Kg wet	1.67		79.9	40-140	0.829	30		
2,6-Dinitrotoluene	1.34	0.34	mg/Kg wet	1.67		80.4	40-140	1.50	30		
Di-n-octylphthalate	1.10	0.34	mg/Kg wet	1.67		65.8	40-140	1.33	30		
1,2-Diphenylhydrazine/Azobenzene	1.14	0.34	mg/Kg wet	1.67		68.6	40-140	1.23	30		
Fluoranthene	1.32	0.17	mg/Kg wet	1.67		79.3	40-140	1.37	30		
Fluorene	1.30	0.17	mg/Kg wet	1.67		78.2	40-140	1.00	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B317736 - SW-846 3546												
LCS Dup (B317736-BSD1)				Prepared: 09/21/22 Analyzed: 09/22/22								
Hexachlorobenzene	1.39	0.34	mg/Kg wet	1.67		83.5		40-140	4.33	30		
Hexachlorobutadiene	1.20	0.34	mg/Kg wet	1.67		71.7		40-140	1.57	30		
Hexachlorocyclopentadiene	0.463	0.34	mg/Kg wet	1.67		**27.8**	*	40-140	8.71	30	L-04, V-05	
Hexachloroethane	0.960	0.34	mg/Kg wet	1.67		57.6		40-140	2.64	30		
Indeno(1,2,3-cd)pyrene	0.897	0.17	mg/Kg wet	1.67		53.8		40-140	0.630	30		
Isophorone	1.25	0.34	mg/Kg wet	1.67		74.8		40-140	1.12	30		
1-Methylnaphthalene	1.05	0.17	mg/Kg wet	1.67		63.2		40-140	0.826	30		
2-Methylnaphthalene	1.24	0.17	mg/Kg wet	1.67		74.2		40-140	0.0809	30		
2-Methylphenol	1.12	0.34	mg/Kg wet	1.67		67.4		30-130	0.563	30		
3/4-Methylphenol	1.20	0.34	mg/Kg wet	1.67		71.9		30-130	0.474	30		
Naphthalene	1.16	0.17	mg/Kg wet	1.67		69.7		40-140	0.0574	30		
2-Nitroaniline	1.20	0.34	mg/Kg wet	1.67		71.9		40-140	1.19	30		
3-Nitroaniline	1.21	0.34	mg/Kg wet	1.67		72.8		30-140	2.39	30		†
4-Nitroaniline	1.22	0.34	mg/Kg wet	1.67		73.0		40-140	2.21	30		
Nitrobenzene	1.12	0.34	mg/Kg wet	1.67		66.9		40-140	1.25	30		
2-Nitrophenol	1.22	0.34	mg/Kg wet	1.67		73.0		30-130	0.384	30		
4-Nitrophenol	1.23	0.66	mg/Kg wet	1.67		73.6		30-130	1.56	50		‡
N-Nitrosodimethylamine	1.09	0.34	mg/Kg wet	1.67		65.3		40-140	1.70	30		
N-Nitrosodiphenylamine/Diphenylamine	1.28	0.34	mg/Kg wet	1.67		76.8		40-140	2.00	30		
N-Nitrosodi-n-propylamine	1.24	0.34	mg/Kg wet	1.67		74.1		40-140	0.458	30		
Pentachloronitrobenzene	1.49	0.34	mg/Kg wet	1.67		89.4		40-140	3.16	30		
Pentachlorophenol	0.957	0.34	mg/Kg wet	1.67		57.4		30-130	2.36	30		
Phenanthrene	1.26	0.17	mg/Kg wet	1.67		75.3		40-140	2.01	30		
Phenol	1.09	0.34	mg/Kg wet	1.67		65.4		30-130	1.28	30		
Pyrene	1.18	0.17	mg/Kg wet	1.67		70.7		40-140	2.46	30		
Pyridine	0.666	0.34	mg/Kg wet	1.67		40.0		30-140	3.51	30		†
1,2,4,5-Tetrachlorobenzene	1.20	0.34	mg/Kg wet	1.67		72.2		40-140	1.68	30		
1,2,4-Trichlorobenzene	1.14	0.34	mg/Kg wet	1.67		68.5		40-140	1.53	30		
2,4,5-Trichlorophenol	1.29	0.34	mg/Kg wet	1.67		77.2		30-130	2.41	30		
2,4,6-Trichlorophenol	1.29	0.34	mg/Kg wet	1.67		77.2		30-130	2.73	30		
Surrogate: 2-Fluorophenol	*4.29*		mg/Kg wet	6.67		64.3		30-130				
Surrogate: Phenol-d6	*4.54*		mg/Kg wet	6.67		68.1		30-130				
Surrogate: Nitrobenzene-d5	*3.25*		mg/Kg wet	3.33		97.5		30-130				
Surrogate: 2-Fluorobiphenyl	*2.83*		mg/Kg wet	3.33		84.8		30-130				
Surrogate: 2,4,6-Tribromophenol	*6.53*		mg/Kg wet	6.67		97.9		30-130				
Surrogate: p-Terphenyl-d14	*2.81*		mg/Kg wet	3.33		84.2		30-130				

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B317737 - SW-846 3546										
Blank (B317737-BLK1)				Prepared: 09/21/22 Analyzed: 09/23/22						
TPH (C9-C36)	ND	8.3	mg/Kg wet							
Surrogate: 2-Fluorobiphenyl	*2.48*		mg/Kg wet	3.33		74.3	40-140			
LCS (B317737-BS1)				Prepared: 09/21/22 Analyzed: 09/23/22						
TPH (C9-C36)	24.3	8.3	mg/Kg wet	33.3		73.0	40-140			
Surrogate: 2-Fluorobiphenyl	*2.86*		mg/Kg wet	3.33		85.8	40-140			
LCS Dup (B317737-BSD1)				Prepared: 09/21/22 Analyzed: 09/23/22						
TPH (C9-C36)	25.9	8.3	mg/Kg wet	33.3		77.7	40-140	6.28	25	
Surrogate: 2-Fluorobiphenyl	*2.98*		mg/Kg wet	3.33		89.5	40-140			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B317748 - SW-846 7471											
Blank (B317748-BLK1)				Prepared: 09/21/22 Analyzed: 09/23/22							
Mercury	ND	0.025	mg/Kg wet								
LCS (B317748-BS1)				Prepared: 09/21/22 Analyzed: 09/23/22							
Mercury	22.3	3.7	mg/Kg wet	25.6		87.2		67.2-132.8			
LCS Dup (B317748-BSD1)				Prepared: 09/21/22 Analyzed: 09/23/22							
Mercury	24.3	3.7	mg/Kg wet	25.6		94.8		67.2-132.8	8.39	20	
Batch B317958 - SW-846 3050B											
Blank (B317958-BLK1)				Prepared: 09/23/22 Analyzed: 09/26/22							
Antimony	ND	1.6	mg/Kg wet								
Arsenic	ND	3.2	mg/Kg wet								
Beryllium	ND	0.16	mg/Kg wet								
Cadmium	ND	0.32	mg/Kg wet								
Chromium	ND	0.64	mg/Kg wet								
Copper	ND	0.64	mg/Kg wet								
Lead	ND	0.48	mg/Kg wet								
Nickel	ND	0.64	mg/Kg wet								
Selenium	ND	3.2	mg/Kg wet								
Silver	ND	0.32	mg/Kg wet								
Zinc	ND	0.64	mg/Kg wet								
Blank (B317958-BLK2)				Prepared: 09/23/22 Analyzed: 10/01/22							
Silver	ND	0.32	mg/Kg wet								
Thallium	ND	1.6	mg/Kg wet								
LCS (B317958-BS1)				Prepared: 09/23/22 Analyzed: 09/26/22							
Antimony	124	4.6	mg/Kg wet	136		91.5		0-200.7			
Arsenic	52.6	9.1	mg/Kg wet	63.0		83.5		82.2-117.6			
Beryllium	180	0.46	mg/Kg wet	136		**133**	*	81.6-117.6			L-07
Cadmium	81.4	0.91	mg/Kg wet	66.6		**122**	*	82-117.9			
Chromium	79.1	1.8	mg/Kg wet	69.3		114		81.7-118.3			
Copper	198	1.8	mg/Kg wet	175		113		83.4-116.6			
Lead	75.7	1.4	mg/Kg wet	85.7		88.3		82.6-117.9			
Nickel	85.7	1.8	mg/Kg wet	72.4		**118**	*	82.2-117.8			L-07
Selenium	130	9.1	mg/Kg wet	134		96.7		78.4-120.9			
Silver	24.3	0.91	mg/Kg wet	26.2		92.8		79.4-121			
Zinc	186	1.8	mg/Kg wet	174		107		80.5-119			
LCS (B317958-BS2)				Prepared: 09/23/22 Analyzed: 10/01/22							
Silver	26.8	0.91	mg/Kg wet	26.2		102		79.4-121			
Thallium	103	4.6	mg/Kg wet	93.1		111		80.2-119.2			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B317958 - SW-846 3050B										
LCS Dup (B317958-BSD1)				Prepared: 09/23/22 Analyzed: 09/26/22						
Antimony	119	4.8	mg/Kg wet	136		87.6	0-200.7	4.35	30	
Arsenic	52.5	9.6	mg/Kg wet	63.0		83.4	82.2-117.6	0.0862	30	
Beryllium	159	0.48	mg/Kg wet	136		117	81.6-117.6	12.5	30	
Cadmium	75.2	0.96	mg/Kg wet	66.6		113	82-117.9	7.91	20	
Chromium	75.2	1.9	mg/Kg wet	69.3		109	81.7-118.3	5.08	30	
Copper	190	1.9	mg/Kg wet	175		109	83.4-116.6	4.31	30	
Lead	78.5	1.4	mg/Kg wet	85.7		91.6	82.6-117.9	3.69	30	
Nickel	80.8	1.9	mg/Kg wet	72.4		112	82.2-117.8	5.95	30	
Selenium	125	9.6	mg/Kg wet	134		93.6	78.4-120.9	3.22	30	
Silver	24.4	0.96	mg/Kg wet	26.2		92.9	79.4-121	0.186	30	
Zinc	179	1.9	mg/Kg wet	174		103	80.5-119	3.75	30	
LCS Dup (B317958-BSD2)				Prepared: 09/23/22 Analyzed: 10/01/22						
Silver	26.4	0.96	mg/Kg wet	26.2		101	79.4-121	1.50	30	
Thallium	99.1	4.8	mg/Kg wet	93.1		106	80.2-119.2	4.35	30	
Reference (B317958-SRM1) MRL CHECK				Prepared: 09/23/22 Analyzed: 09/26/22						**M-10**
Lead	0.638	0.49	mg/Kg wet	0.493		**129**	* 80-120			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-09	Sample received by laboratory with insufficient time remaining to perform analysis within the recommended holding time.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
M-10	The reporting limit verification for the AIHA lead program is outside of control limits for this element. Any reported result at or near the detection limit may be biased on the high side.
O-06	Sample falls within the range of a #6 fuel oil. However, it also has some characteristics of a higher boiling range hydrocarbon. It does not match any of the laboratory standard reference materials exactly.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,RI,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8260D in Soil	
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY,ME
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Soil	
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY,ME
1,2-Dibromoethane (EDB)	NH,NY
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
Diethyl Ether	ME
1,4-Dioxane	NY,ME
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY,ME
Methyl tert-Butyl Ether (MTBE)	NY,ME,VA
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY,ME
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Soil	
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022

22I103

Pace Analytical

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Fax: 413-525-6405
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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name: Stone Environmental Inc.
Address: 535 Stone Cutters Way, Montpelier
Phone:
Project Name: Thetford Landfill
Project Location: Thetford VT
Project Number: 20-096
Project Manager: Rebecca Treat
Pace Quote Name/Number:
Invoice Recipient: Stone Accounting
Sampled By: LBR, JGW

Required Turnaround Time: 7-Day [X] 10-Day [ ] PFAS 10-Day (std) [ ] Due Date:

Rush Approval Required: 1-Day [ ] 3-Day [ ] 2-Day [ ] 4-Day [ ]

Date Delivered:
Format: PDF [X] EXCEL [ ]
Other: Equis EDD
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples: [ ] Field Filtered [ ] Lab to Filter

Other Filtered Samples: [ ] Field Filtered [ ] Lab to Filter

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOC 8260	SVOC 8270	PCB 8082	PFAS 537.1
1	SB-1-0.5	9/14/22		G	S		3	1				X	X	X	X
2	SB-2-0.5											X	X	X	X
3	SB-3-0.5											X	X	X	X
4	SB-3-0.5-FD											X	X	X	X
5	SB-4-0.5											X	X	X	X
6	SB-5-0.5											X	X	X	X
7	TRIP BLANK											X			

Relinquished by: (signature) Joanna Wright — Date/Time: 9/19/22
Received by: (signature) — Date/Time: 9/20 8:30
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:

Lab Comments:

Data Package Options (circle if required)
TR
Other

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

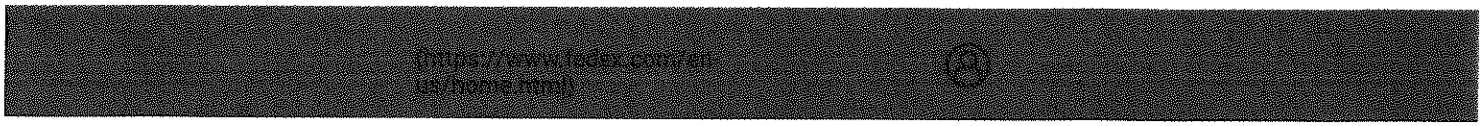
[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[2] Preservation Code

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. Th Chain of Custody is a legal document that must be complete and accurate and is used to determine wh analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pa Analytical values your partnership on each project and will try to assist with missing information, but w not be held accountable.

Table of Contents



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Get Status Updates

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9/20/2022 4:09 PM

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EAST LONGMEADOW, MA US

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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

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

Client Stone Environmental

Received By LA Date 9/20/22 Time 930

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____ Direct From Sample F Ambient _____ Melted Ice _____

Were samples within Tempurature? Within 2-6°C T By Gun # 5 Actual Temp - 4.8 By Blank # _____ Actual Temp - _____

Was Custody Seal In tact? N/A Were Samples Tampered with? F

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

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

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

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

Are Sample labels filled out and legible? T

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

Are there Rushes? _____ Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? T Is there enough Volume? T

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

Proper Media/Containers Used? T splitting samples require F

Were trip blanks receive F On COC? F

Do All Samples Have the proper pH? N/A Acid Base

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-	N/A	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	8
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-	14	Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

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December 28, 2022

Rebecca Treat
Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602

Project Location: Thetford, VT
Client Job Number:
Project Number: 20-096
Laboratory Work Order Number: 22K3400

Enclosed are results of analyses for samples as received by the laboratory on November 23, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

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

Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 12/28/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22K3400

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BR-4	22K3400-01	Ground Water		-	
				EPA 537.1	
BR-201	22K3400-02	Ground Water		EPA 537.1	
BR-202	22K3400-03	Ground Water		EPA 537.1	
FRB-112122	22K3400-04	Ground Water		EPA 537.1	
MW-2	22K3400-05	Ground Water		EPA 537.1	
Leibon Well	22K3400-06	Ground Water		EPA 537.1	
BR-1	22K3400-07	Ground Water		EPA 537.1	
BR-2	22K3400-08	Ground Water		EPA 537.1	
BR-2FD	22K3400-09	Ground Water		EPA 537.1	
EB-112222	22K3400-10	Ground Water		EPA 537.1	
PMCWS WELL	22K3400-11	Ground Water		EPA 537.1	
BR-3	22K3400-12	Ground Water		EPA 537.1	
MW-101D	22K3400-13	Ground Water		EPA 537.1	
Trip Blank	22K3400-14	Ground Water		EPA 537.1	

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CASE NARRATIVE SUMMARY

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

REVISED REPORT 12/28/22- Sample -01 ID revised

EPA 537.1

Qualifications:

PF-01

Surrogate recovery is outside of control limits. Sample not re-extracted past holding time per method.

Analyte & Samples(s) Qualified:

M3HFPO-DA
22K3400-12[BR-3], 22K3400-13[MW-101D]

PF-15

Surrogate recovery is outside of control limits. Unable to re-extract sample due to insufficient sample volume.

Analyte & Samples(s) Qualified:

13C-PFHxA
22K3400-14[Trip Blank]

M3HFPO-DA
22K3400-14[Trip Blank]

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

Kaitlyn A. Feliciano
Project Manager

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3400-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorohexanoic acid (PFHxA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluoroheptanoic acid (PFHpA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorooctanoic acid (PFOA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorononanoic acid (PFNA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorodecanoic acid (PFDA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
N-EtFOSAA (NEtFOSAA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.1	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:41	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	88.4	70-130		11/29/22 10:41
M3HFPO-DA	86.2	70-130		11/29/22 10:41
13C-PFDA	89.3	70-130		11/29/22 10:41
D5-NEtFOSAA	97.7	70-130		11/29/22 10:41

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3400-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:48	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	103	70-130		11/29/22 10:48
M3HFPO-DA	101	70-130		11/29/22 10:48
13C-PFDA	94.3	70-130		11/29/22 10:48
D5-NEtFOSAA	89.7	70-130		11/29/22 10:48

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3400-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 10:55	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	101	70-130		11/29/22 10:55
M3HFPO-DA	105	70-130		11/29/22 10:55
13C-PFDA	102	70-130		11/29/22 10:55
D5-NEtFOSAA	112	70-130		11/29/22 10:55

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: FRB-112122 | Sampled: 11/21/2022 15:27

Sample ID: 22K3400-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	11/29/22 11:02	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	105	70-130		11/29/22 11:02
M3HFPO-DA	110	70-130		11/29/22 11:02
13C-PFDA	104	70-130		11/29/22 11:02
D5-NEtFOSAA	115	70-130		11/29/22 11:02

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3400-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorooctanesulfonic acid (PFOS)	3.0	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 14:58	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	82.9	70-130		12/1/22 14:58
M3HFPO-DA	72.6	70-130		12/1/22 14:58
13C-PFDA	92.8	70-130		12/1/22 14:58
D5-NEtFOSAA	97.5	70-130		12/1/22 14:58

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3400-06

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:05	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	93.9	70-130		12/1/22 15:05
M3HFPO-DA	83.1	70-130		12/1/22 15:05
13C-PFDA	85.8	70-130		12/1/22 15:05
D5-NEtFOSAA	77.7	70-130		12/1/22 15:05

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3400-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:12	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	94.2	70-130		12/1/22 15:12
M3HFPO-DA	84.0	70-130		12/1/22 15:12
13C-PFDA	89.4	70-130		12/1/22 15:12
D5-NEtFOSAA	83.6	70-130		12/1/22 15:12

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3400-08

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:19	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	92.2	70-130		12/1/22 15:19
M3HFPO-DA	80.5	70-130		12/1/22 15:19
13C-PFDA	90.4	70-130		12/1/22 15:19
D5-NEtFOSAA	96.6	70-130		12/1/22 15:19

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3400-09

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		EPA 537.1	11/28/22	12/1/22 15:26	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	89.1	70-130		12/1/22 15:26
M3HFPO-DA	77.7	70-130		12/1/22 15:26
13C-PFDA	87.3	70-130		12/1/22 15:26
D5-NEtFOSAA	97.4	70-130		12/1/22 15:26

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: EB-112222 | Sampled: 11/22/2022 12:20

Sample ID: 22K3400-10

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	11/30/22	12/5/22 13:43	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	89.4	70-130		12/5/22 13:43
M3HFPO-DA	81.2	70-130		12/5/22 13:43
13C-PFDA	92.0	70-130		12/5/22 13:43
D5-NEtFOSAA	95.6	70-130		12/5/22 13:43

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: PMCWS WELL | Sampled: 11/22/2022 14:40

Sample ID: 22K3400-11

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:19	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	89.9	70-130		12/6/22 10:19
M3HFPO-DA	90.0	70-130		12/6/22 10:19
13C-PFDA	88.1	70-130		12/6/22 10:19
D5-NEtFOSAA	94.8	70-130		12/6/22 10:19

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3400-12

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorohexanoic acid (PFHxA)	6.8	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluoroheptanoic acid (PFHpA)	3.6	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorooctanoic acid (PFOA)	27	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorononanoic acid (PFNA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorodecanoic acid (PFDA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
N-EtFOSAA (NEtFOSAA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:26	AMS

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	90.6		70-130		12/6/22 10:26
M3HFPO-DA	**66.1**	*	70-130	PF-01	12/6/22 10:26
13C-PFDA	91.4		70-130		12/6/22 10:26
D5-NEtFOSAA	86.9		70-130		12/6/22 10:26

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3400-13

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorohexanoic acid (PFHxA)	5.9	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorohexanesulfonic acid (PFHxS)	3.3	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluoroheptanoic acid (PFHpA)	3.5	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorooctanoic acid (PFOA)	9.2	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorononanoic acid (PFNA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorodecanoic acid (PFDA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
N-EtFOSAA (NEtFOSAA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.1	ng/L	1		EPA 537.1	11/30/22	12/6/22 10:34	AMS

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	93.2		70-130		12/6/22 10:34
M3HFPO-DA	**67.9**	*	70-130	PF-01	12/6/22 10:34
13C-PFDA	88.0		70-130		12/6/22 10:34
D5-NEtFOSAA	85.3		70-130		12/6/22 10:34

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3400

Date Received: 11/23/2022

Field Sample #: Trip Blank | Sampled: 11/21/2022 00:00

Sample ID: 22K3400-14

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		EPA 537.1	11/29/22	12/2/22 12:11	AMS

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	**16.2**	*	70-130	PF-15	12/2/22 12:11
M3HFPO-DA	**16.1**	*	70-130	PF-15	12/2/22 12:11
13C-PFDA	88.9		70-130		12/2/22 12:11
D5-NEtFOSAA	98.6		70-130		12/2/22 12:11

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Sample Extraction Data

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3400-01 [BR-4]	B323937	241	1.00	11/28/22
22K3400-02 [BR-201]	B323937	257	1.00	11/28/22
22K3400-03 [BR-202]	B323937	247	1.00	11/28/22
22K3400-04 [FRB-112122]	B323937	256	1.00	11/28/22

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3400-05 [MW-2]	B323938	257	1.00	11/28/22
22K3400-06 [Leibon Well]	B323938	277	1.00	11/28/22
22K3400-07 [BR-1]	B323938	246	1.00	11/28/22
22K3400-08 [BR-2]	B323938	260	1.00	11/28/22
22K3400-09 [BR-2FD]	B323938	270	1.00	11/28/22

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3400-14 [Trip Blank]	B324051	260	1.00	11/29/22

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3400-10 [EB-112222]	B324052	247	1.00	11/30/22
22K3400-11 [PMCWS WELL]	B324052	277	1.00	11/30/22
22K3400-12 [BR-3]	B324052	239	1.00	11/30/22
22K3400-13 [MW-101D]	B324052	235	1.00	11/30/22

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B323937 - EPA 537.1										
Blank (B323937-BLK1)				Prepared: 11/28/22 Analyzed: 11/29/22						
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L							
Surrogate: 13C-PFHxA	*36.1*		ng/L	36.0		100	70-130			
Surrogate: M3HFPO-DA	*37.0*		ng/L	36.0		103	70-130			
Surrogate: 13C-PFDA	*37.1*		ng/L	36.0		103	70-130			
Surrogate: D5-NEtFOSAA	*146*		ng/L	144		101	70-130			
LCS (B323937-BS1)				Prepared: 11/28/22 Analyzed: 11/29/22						
Perfluorobutanesulfonic acid (PFBS)	1.43	1.8	ng/L	1.60		89.2	50-150			
Perfluorohexanoic acid (PFHxA)	1.75	1.8	ng/L	1.80		97.0	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.68	1.8	ng/L	1.65		102	50-150			
Perfluoroheptanoic acid (PFHpA)	1.74	1.8	ng/L	1.80		96.8	50-150			
Perfluorooctanoic acid (PFOA)	1.86	1.8	ng/L	1.80		103	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.62	1.8	ng/L	1.67		97.2	50-150			
Perfluorononanoic acid (PFNA)	1.88	1.8	ng/L	1.80		104	50-150			
Perfluorodecanoic acid (PFDA)	1.77	1.8	ng/L	1.80		98.0	50-150			
N-EtFOSAA (NEtFOSAA)	1.55	1.8	ng/L	1.80		86.0	50-150			
Perfluoroundecanoic acid (PFUnA)	1.74	1.8	ng/L	1.80		96.6	50-150			
N-MeFOSAA (NMeFOSAA)	1.56	1.8	ng/L	1.80		86.8	50-150			
Perfluorododecanoic acid (PFDoA)	1.77	1.8	ng/L	1.80		98.3	50-150			
Perfluorotridecanoic acid (PFTrDA)	1.83	1.8	ng/L	1.80		102	50-150			
Perfluorotetradecanoic acid (PFTA)	1.83	1.8	ng/L	1.80		101	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.59	1.8	ng/L	1.80		144	50-150			
11Cl-PF3OUdS (F53B Major)	1.35	1.8	ng/L	1.70		79.2	50-150			
9Cl-PF3ONS (F53B Minor)	1.49	1.8	ng/L	1.68		88.4	50-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.61	1.8	ng/L	1.70		94.6	50-150			
Surrogate: 13C-PFHxA	*36.5*		ng/L	36.0		101	70-130			
Surrogate: M3HFPO-DA	*37.1*		ng/L	36.0		103	70-130			
Surrogate: 13C-PFDA	*36.3*		ng/L	36.0		101	70-130			
Surrogate: D5-NEtFOSAA	*140*		ng/L	144		97.0	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B323938 - EPA 537.1										
Blank (B323938-BLK1)				Prepared: 11/28/22 Analyzed: 12/01/22						
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L							
Surrogate: 13C-PFHxA	*33.5*		ng/L	36.3		92.1	70-130			
Surrogate: M3HFPO-DA	*30.7*		ng/L	36.3		84.5	70-130			
Surrogate: 13C-PFDA	*32.5*		ng/L	36.3		89.5	70-130			
Surrogate: D5-NEtFOSAA	*139*		ng/L	145		95.4	70-130			
LCS (B323938-BS1)				Prepared: 11/28/22 Analyzed: 12/01/22						
Perfluorobutanesulfonic acid (PFBS)	6.55	1.8	ng/L	7.78		84.2	70-130			
Perfluorohexanoic acid (PFHxA)	8.22	1.8	ng/L	8.77		93.7	70-130			
Perfluorohexanesulfonic acid (PFHxS)	7.14	1.8	ng/L	8.02		89.1	70-130			
Perfluoroheptanoic acid (PFHpA)	8.38	1.8	ng/L	8.77		95.5	70-130			
Perfluorooctanoic acid (PFOA)	8.39	1.8	ng/L	8.77		95.7	70-130			
Perfluorooctanesulfonic acid (PFOS)	7.97	1.8	ng/L	8.14		97.9	70-130			
Perfluorononanoic acid (PFNA)	10.6	1.8	ng/L	8.77		121	70-130			
Perfluorodecanoic acid (PFDA)	8.59	1.8	ng/L	8.77		98.0	70-130			
N-EtFOSAA (NEtFOSAA)	8.17	1.8	ng/L	8.77		93.1	70-130			
Perfluoroundecanoic acid (PFUnA)	8.73	1.8	ng/L	8.77		99.5	70-130			
N-MeFOSAA (NMeFOSAA)	8.32	1.8	ng/L	8.77		94.9	70-130			
Perfluorododecanoic acid (PFDoA)	9.16	1.8	ng/L	8.77		104	70-130			
Perfluorotridecanoic acid (PFTrDA)	8.60	1.8	ng/L	8.77		98.1	70-130			
Perfluorotetradecanoic acid (PFTA)	8.36	1.8	ng/L	8.77		95.4	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	8.21	1.8	ng/L	8.77		93.6	70-130			
11Cl-PF3OUdS (F53B Major)	7.18	1.8	ng/L	8.27		86.8	70-130			
9Cl-PF3ONS (F53B Minor)	7.53	1.8	ng/L	8.18		92.0	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.08	1.8	ng/L	8.29		85.4	70-130			
Surrogate: 13C-PFHxA	*31.7*		ng/L	35.1		90.5	70-130			
Surrogate: M3HFPO-DA	*28.3*		ng/L	35.1		80.7	70-130			
Surrogate: 13C-PFDA	*32.0*		ng/L	35.1		91.1	70-130			
Surrogate: D5-NEtFOSAA	*132*		ng/L	140		94.2	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324051 - EPA 537.1										
Blank (B324051-BLK1)				Prepared: 11/29/22 Analyzed: 12/02/22						
Perfluorobutanesulfonic acid (PFBS)	ND	1.7	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.7	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.7	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.7	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.7	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.7	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.7	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.7	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.7	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.7	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.7	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.7	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.7	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.7	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.7	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.7	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7	ng/L							
Surrogate: 13C-PFHxA	*36.1*		ng/L	34.8		104	70-130			
Surrogate: M3HFPO-DA	*31.9*		ng/L	34.8		91.6	70-130			
Surrogate: 13C-PFDA	*35.9*		ng/L	34.8		103	70-130			
Surrogate: D5-NEtFOSAA	*146*		ng/L	139		105	70-130			
LCS (B324051-BS1)				Prepared: 11/29/22 Analyzed: 12/02/22						
Perfluorobutanesulfonic acid (PFBS)	13.9	1.9	ng/L	16.5		84.2	70-130			
Perfluorohexanoic acid (PFHxA)	18.7	1.9	ng/L	18.6		101	70-130			
Perfluorohexanesulfonic acid (PFHxS)	15.8	1.9	ng/L	17.0		93.2	70-130			
Perfluoroheptanoic acid (PFHpA)	19.6	1.9	ng/L	18.6		106	70-130			
Perfluorooctanoic acid (PFOA)	19.0	1.9	ng/L	18.6		103	70-130			
Perfluorooctanesulfonic acid (PFOS)	16.9	1.9	ng/L	17.2		97.9	70-130			
Perfluorononanoic acid (PFNA)	22.5	1.9	ng/L	18.6		121	70-130			
Perfluorodecanoic acid (PFDA)	17.9	1.9	ng/L	18.6		96.6	70-130			
N-EtFOSAA (NEtFOSAA)	17.5	1.9	ng/L	18.6		94.1	70-130			
Perfluoroundecanoic acid (PFUnA)	17.9	1.9	ng/L	18.6		96.5	70-130			
N-MeFOSAA (NMeFOSAA)	17.6	1.9	ng/L	18.6		94.9	70-130			
Perfluorododecanoic acid (PFDoA)	19.1	1.9	ng/L	18.6		103	70-130			
Perfluorotridecanoic acid (PFTrDA)	18.3	1.9	ng/L	18.6		98.8	70-130			
Perfluorotetradecanoic acid (PFTA)	17.5	1.9	ng/L	18.6		94.2	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	19.9	1.9	ng/L	18.6		108	70-130			
11Cl-PF3OUdS (F53B Major)	15.7	1.9	ng/L	17.5		89.8	70-130			
9Cl-PF3ONS (F53B Minor)	15.5	1.9	ng/L	17.3		89.5	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	16.0	1.9	ng/L	17.5		91.5	70-130			
Surrogate: 13C-PFHxA	*38.8*		ng/L	37.1		105	70-130			
Surrogate: M3HFPO-DA	*34.1*		ng/L	37.1		92.0	70-130			
Surrogate: 13C-PFDA	*34.3*		ng/L	37.1		92.4	70-130			
Surrogate: D5-NEtFOSAA	*137*		ng/L	148		92.6	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324052 - EPA 537.1										
Blank (B324052-BLK1)				Prepared: 11/30/22 Analyzed: 12/05/22						
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L							
Surrogate: 13C-PFHxA	*35.1*		ng/L	36.6		95.7	70-130			
Surrogate: M3HFPO-DA	*32.4*		ng/L	36.6		88.4	70-130			
Surrogate: 13C-PFDA	*35.4*		ng/L	36.6		96.6	70-130			
Surrogate: D5-NEtFOSAA	*142*		ng/L	147		96.7	70-130			
LCS (B324052-BS1)				Prepared: 11/30/22 Analyzed: 12/05/22						
Perfluorobutanesulfonic acid (PFBS)	1.55	1.8	ng/L	1.60		97.3	50-150			
Perfluorohexanoic acid (PFHxA)	1.80	1.8	ng/L	1.80		100	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.62	1.8	ng/L	1.64		98.5	50-150			
Perfluoroheptanoic acid (PFHpA)	1.76	1.8	ng/L	1.80		97.7	50-150			
Perfluorooctanoic acid (PFOA)	2.22	1.8	ng/L	1.80		124	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.60	1.8	ng/L	1.67		96.1	50-150			
Perfluorononanoic acid (PFNA)	2.17	1.8	ng/L	1.80		120	50-150			
Perfluorodecanoic acid (PFDA)	1.78	1.8	ng/L	1.80		98.9	50-150			
N-EtFOSAA (NEtFOSAA)	1.70	1.8	ng/L	1.80		94.6	50-150			
Perfluoroundecanoic acid (PFUnA)	1.70	1.8	ng/L	1.80		94.4	50-150			
N-MeFOSAA (NMeFOSAA)	1.65	1.8	ng/L	1.80		91.6	50-150			
Perfluorododecanoic acid (PFDoA)	1.79	1.8	ng/L	1.80		99.5	50-150			
Perfluorotridecanoic acid (PFTrDA)	1.86	1.8	ng/L	1.80		103	50-150			
Perfluorotetradecanoic acid (PFTA)	1.70	1.8	ng/L	1.80		94.4	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.04	1.8	ng/L	1.80		113	50-150			
11Cl-PF3OUdS (F53B Major)	1.34	1.8	ng/L	1.70		78.9	50-150			
9Cl-PF3ONS (F53B Minor)	1.46	1.8	ng/L	1.68		86.9	50-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.58	1.8	ng/L	1.70		93.0	50-150			
Surrogate: 13C-PFHxA	*34.5*		ng/L	36.0		95.9	70-130			
Surrogate: M3HFPO-DA	*31.6*		ng/L	36.0		87.8	70-130			
Surrogate: 13C-PFDA	*34.5*		ng/L	36.0		96.0	70-130			
Surrogate: D5-NEtFOSAA	*141*		ng/L	144		97.6	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
PF-01	Surrogate recovery is outside of control limits. Sample not re-extracted past holding time per method.
PF-15	Surrogate recovery is outside of control limits. Unable to re-extract sample due to insufficient sample volume.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 537.1 in Drinking Water	
Perfluorobutanesulfonic acid (PFBS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorohexanoic acid (PFHxA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorohexanesulfonic acid (PFHxS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluoroheptanoic acid (PFHpA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorononanoic acid (PFNA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorodecanoic acid (PFDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
N-EtFOSAA (NEtFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluoroundecanoic acid (PFUnA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
N-MeFOSAA (NMeFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorododecanoic acid (PFDoA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorotridecanoic acid (PFTrDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorotetradecanoic acid (PFTA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
11Cl-PF3OUdS (F53B Major)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
9Cl-PF3ONS (F53B Minor)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH

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

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	06/30/2023

22K3400

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Page 1 of 2

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Company Name:	Stone Environmental Inc
Address:	535 Stone Cutters Way
Phone:	802-229-4541
Project Name:	Landfill (UVRLC)
Project Location:	Post Mills, VT (ST) THETFORD, VT
Project Number:	20-096
Project Manager:	R. Treat
Pace Quote Name/Number:	
Invoice Recipient:	Stone acct / R. Treat
Sampled By:	LBR / RMT

Requested Turnaround Time
7-Day [X] 10-Day [ ]
PFAS 10-Day (std) [X] Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other: Equis EDD
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	I,S COD 410.4	I,N Sodium 6010 Total	I Chloride SM4500	I 1,4-Dioxane SIM	I,# 1,2-Dioxin 1613B	I 8260 VOCs	I,O 8270 SVOCs	I,N 8082 PCBs	I,N PFAS 537.1	I PP METALS (6020 (TOTAL)) 7470/7471 (TOTAL)	I MERCURY 7470/7471 (TOTAL)
1	Stone Well	11/21/22	1905	GRAB	GW		2	8	6			X	X	X	X	X	X	X	X	X	X	X
2	BR-20i		1350				2	8	6			X	X	X	X	X	X	X	X	X	X	X
3	BR-20D		1445				2	8	6			X	X	X	X	X	X	X	X	X	X	X
4	FRB-112122		1527				2		1											X		
5	MW-2		1650				2	8	6			X	X	X	X	X	X	X	X	X	X	X
6	LEIBON WELL	↓	1605				2	8	6			X	X	X	X	X	X	X	X	X	X	X
7	BR-1	11/22/22	1025				2	8	6			X	X	X	X	X	X	X	X	X	X	X
8	BR-2		1200				2	8	6			X	X	X	X	X	X	X	X	X	X	X
9	BR-2-FD		1200				2	8	6			X	X	X	X	X	X	X	X	X	X	X
10	EB-112222	↓	1220	↓	↓		2	8	6			X	X	X	X	X	X	X	X	X	X	X

Client Comments:

Relinquished by: (signature)	J Rapzil	Date/Time: 11/22/22 1700
Received by: (signature)	Vital Solutions	Date/Time: 11/22/22 1700
Relinquished by: (signature)	RMT VDS	Date/Time: 11-23-22
Received by: (signature)		Date/Time: 1830
Relinquished by: (signature)		Date/Time: 1310
Received by: (signature)	4.6, 3.8, 0.4, 2.6	Date/Time: 11/23/22 1310
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Lab Comments:

Detection Limit Requirements
MA
CT

Special Requirements
MA MCP Required [ ]
MCP Certification Form Required [ ]
CT RCP Required [ ]
RCP Certification Form Required [ ]
MA State DW Required [ ]

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Other: VTDEC/EPA RB
PWSID #

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

Other
Chromatogram [ ]
AIHA-LAP,LLC [ ]

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. Chain of Custody is a legal document that must be complete and accurate and is used to determine analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Analytical values your partnership on each project and will try to assist with missing information, b not be held accountable.

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) TICMA

22K3400

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name:	STONE ENVIRONMENTAL INC
Address:	535 STONE CUTTERS WAY
Phone:	802-229-4541
Project Name:	THETFORD LANDFILL (UVRLC)
Project Location:	THETFORD, VT
Project Number:	20-096
Project Manager:	R. TREAT
Pace Quote Name/Number:	
Invoice Recipient:	STONE ACCT. / R. TREAT
Sampled By:	LBR/RIT

Requested Turnaround Time
7-Day [X] 10-Day [ ]
PFAS 10-Day (std) [X] Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

Data Delivery
Format: PDF [X] EXCEL [X]
Other: EQUIS EDD
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	I,S 410.4 COD	I,N SODIUM 6020 TOTAL	I CHLORIDE SM4500	I 1,4-DIOXANE SIM	I 5-DIOXIN 1613B	I,H 8260 VOCs	I 8270 SVOCs	I 8082 PCBs	I,O PFAS 537.1	I,N PP METALS 6020 (TOTAL)	I,N MERCURY 7470 (TOTAL)
11	PMCWS WELL	11/22/22	1440	GRAB	DW		2	8	6			X	X	X	X	X	X	X	X	X	X	X
12	BR-3	↓	1530	↓	GW		↓	↓	↓			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
13	MW-101D	↓	1340	↓	GW		↓	↓	↓													
14	TRIP BLANK	LAB	PREPARED						12 (2nd)													
	TRIP BLANK	11/23/22	0830				2										X			X		

Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)
TRIZMA

Relinquished by: (signature)	Z Raniak	Date/Time: 11/22/22 1700
Received by: (signature)	Vital Solutions	Date/Time: 11/22/22 1700
Relinquished by: (signature)		Date/Time: 11-23-22
Received by: (signature)	11/23/22	Date/Time: 1030
Relinquished by: (signature)	11/23/22	Date/Time: 1310
Received by: (signature)		Date/Time: 1310
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VTDEC/EDA DSL

Special Requirements
MA MCP Required [ ]
MCP Certification Form Required
CT RCP Required [ ]
RCP Certification Form Required
MA State DW Required [ ]
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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Doc# 277 Rev 6 July 2022

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

Client Received By Stone Env. Date 11/23/20 Time 1310

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

Were samples within Tempurature? Direct From Sample ____ Ambient ____ Melted Ice ____

Within 2-6°C T By Gun # 3 Actual Temp - 4.6, 3.8, 2.4, 2.6

Was Custody Seal In tact? n/a By Blank # ____ Actual Temp - ____

Was COC Relinquished ? T Were Samples Tampered with? n/a

Are there broken/leaking/loose caps on any samples? F Does Chain Agree With Samples? T

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

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

Project? T ID's? T Collection Dates/Times? T

Are Sample labels filled out and legible? T

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

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Samples are received within holding time? T Is there enough Volume? T

Is there Headspace where applicable? n/a MS/MSD? ____

Proper Media/Containers Used? T splitting samples requirec F

Were trip blanks receive T On COC? T

Do All Samples Have the proper pH? n/a Acid ____ Base ____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	25	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

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December 23, 2022

Rebecca Treat
Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602

Project Location: Thetford, VT
Client Job Number:
Project Number: 20-096
Laboratory Work Order Number: 22L2420

Enclosed are results of analyses for samples as received by the laboratory on December 16, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

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

Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 12/23/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22L2420

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	22L2420-01	Ground Water		EPA 537.1	

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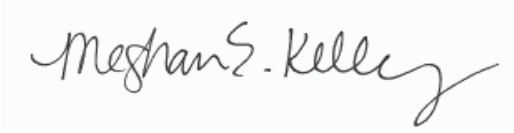
CASE NARRATIVE SUMMARY

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

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



Meghan E. Kelley
Reporting Specialist

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22L2420

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/16/2022 00:00

Sample ID: 22L2420-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
N-EtFOSAA (NEtFOSAA)	3.6	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	12/19/22	12/22/22 12:16	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	101	70-130		12/22/22 12:16
M3HFPO-DA	104	70-130		12/22/22 12:16
13C-PFDA	102	70-130		12/22/22 12:16
D5-NEtFOSAA	109	70-130		12/22/22 12:16

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Sample Extraction Data

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2420-01 [MW-1]	B326225	253	1.00	12/19/22

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326225 - EPA 537.1										
Blank (B326225-BLK1)				Prepared: 12/19/22 Analyzed: 12/21/22						
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L							
Surrogate: 13C-PFHxA	*47.4*		ng/L	37.3		127	70-130			
Surrogate: M3HFPO-DA	*46.3*		ng/L	37.3		124	70-130			
Surrogate: 13C-PFDA	*46.1*		ng/L	37.3		124	70-130			
Surrogate: D5-NEtFOSAA	*187*		ng/L	149		125	70-130			
LCS (B326225-BS1)				Prepared: 12/19/22 Analyzed: 12/21/22						
Perfluorobutanesulfonic acid (PFBS)	1.72	1.8	ng/L	1.57		109	50-150			
Perfluorohexanoic acid (PFHxA)	1.94	1.8	ng/L	1.77		110	50-150			
Perfluorohexanesulfonic acid (PFHxS)	2.02	1.8	ng/L	1.62		124	50-150			
Perfluoroheptanoic acid (PFHpA)	1.96	1.8	ng/L	1.77		110	50-150			
Perfluorooctanoic acid (PFOA)	2.02	1.8	ng/L	1.77		114	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.91	1.8	ng/L	1.65		116	50-150			
Perfluorononanoic acid (PFNA)	1.90	1.8	ng/L	1.77		107	50-150			
Perfluorodecanoic acid (PFDA)	1.93	1.8	ng/L	1.77		109	50-150			
N-EtFOSAA (NEtFOSAA)	1.96	1.8	ng/L	1.77		110	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	1.8	ng/L	1.77		101	50-150			
N-MeFOSAA (NMeFOSAA)	2.13	1.8	ng/L	1.77		120	50-150			
Perfluorododecanoic acid (PFDoA)	1.82	1.8	ng/L	1.77		103	50-150			
Perfluorotridecanoic acid (PFTrDA)	1.73	1.8	ng/L	1.77		97.5	50-150			
Perfluorotetradecanoic acid (PFTA)	1.69	1.8	ng/L	1.77		95.4	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.87	1.8	ng/L	1.77		106	50-150			
11Cl-PF3OUdS (F53B Major)	1.73	1.8	ng/L	1.67		104	50-150			
9Cl-PF3ONS (F53B Minor)	1.85	1.8	ng/L	1.66		112	50-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.76	1.8	ng/L	1.68		105	50-150			
Surrogate: 13C-PFHxA	*35.2*		ng/L	35.5		99.3	70-130			
Surrogate: M3HFPO-DA	*33.5*		ng/L	35.5		94.5	70-130			
Surrogate: 13C-PFDA	*35.0*		ng/L	35.5		98.6	70-130			
Surrogate: D5-NEtFOSAA	*139*		ng/L	142		97.8	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326225 - EPA 537.1										
LCS Dup (B326225-BSD1)				Prepared: 12/19/22 Analyzed: 12/21/22						
Perfluorobutanesulfonic acid (PFBS)	1.94	1.9	ng/L	1.67		116	50-150	12.0	50	
Perfluorohexanoic acid (PFHxA)	2.21	1.9	ng/L	1.88		117	50-150	12.7	50	
Perfluorohexanesulfonic acid (PFHxS)	2.23	1.9	ng/L	1.72		130	50-150	10.2	50	
Perfluoroheptanoic acid (PFHpA)	2.26	1.9	ng/L	1.88		120	50-150	14.6	50	
Perfluorooctanoic acid (PFOA)	2.31	1.9	ng/L	1.88		123	50-150	13.6	50	
Perfluorooctanesulfonic acid (PFOS)	2.29	1.9	ng/L	1.75		131	50-150	18.0	50	
Perfluorononanoic acid (PFNA)	2.22	1.9	ng/L	1.88		118	50-150	15.5	50	
Perfluorodecanoic acid (PFDA)	2.22	1.9	ng/L	1.88		118	50-150	14.1	50	
N-EtFOSAA (NEtFOSAA)	2.33	1.9	ng/L	1.88		124	50-150	17.6	50	
Perfluoroundecanoic acid (PFUnA)	2.09	1.9	ng/L	1.88		111	50-150	15.2	50	
N-MeFOSAA (NMeFOSAA)	2.17	1.9	ng/L	1.88		115	50-150	1.81	50	
Perfluorododecanoic acid (PFDoA)	2.01	1.9	ng/L	1.88		107	50-150	9.71	50	
Perfluorotridecanoic acid (PFTrDA)	2.01	1.9	ng/L	1.88		107	50-150	14.7	50	
Perfluorotetradecanoic acid (PFTA)	2.02	1.9	ng/L	1.88		107	50-150	17.8	50	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.16	1.9	ng/L	1.88		115	50-150	14.2	50	
11Cl-PF3OUdS (F53B Major)	1.96	1.9	ng/L	1.77		111	50-150	12.6	50	
9Cl-PF3ONS (F53B Minor)	2.14	1.9	ng/L	1.76		122	50-150	14.5	50	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.07	1.9	ng/L	1.78		117	50-150	16.2	50	
Surrogate: 13C-PFHxA	*39.4*		ng/L	37.6		105	70-130			
Surrogate: M3HFPO-DA	*37.8*		ng/L	37.6		100	70-130			
Surrogate: 13C-PFDA	*39.3*		ng/L	37.6		104	70-130			
Surrogate: D5-NEtFOSAA	*157*		ng/L	151		105	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 537.1 in Drinking Water	
Perfluorobutanesulfonic acid (PFBS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorohexanoic acid (PFHxA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorohexanesulfonic acid (PFHxS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluoroheptanoic acid (PFHpA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorononanoic acid (PFNA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorodecanoic acid (PFDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
N-EtFOSAA (NEtFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluoroundecanoic acid (PFUnA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
N-MeFOSAA (NMeFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorododecanoic acid (PFDoA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorotridecanoic acid (PFTrDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Perfluorotetradecanoic acid (PFTA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
11Cl-PF3OUdS (F53B Major)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
9Cl-PF3ONS (F53B Minor)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH

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

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	06/30/2023

2212420

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Access COC's and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Stone Environmental Inc.
Address:	535 Stone Cutters Way Montpelier, VT 05602
Phone:	978-621-9490
Project Name:	Thetford Landfill (UVRuk)
Project Location:	Thetford, VT
Project Number:	20-096
Project Manager:	R. Treat
Pace Quote Name/Number:	
Invoice Recipient:	Stone accts / R. Treat
Sampled By:	APR

Requested Turnaround Time			
7-Day	X	10-Day	
PFAS 10-Day (std)	X	Due Date:	
Rush-Approval Required			
1-Day		3-Day	
2-Day		4-Day	

Dissolved Metals Samples	
	Field Filtered
	Lab to Filter
Orthophosphate Samples	
	Field Filtered
	Lab to Filter

Data Delivery	
Format:	PDF X EXCEL X
Other:	Equis EDD
CLP Like Data Pkg Required:	
Email To:	rtreat@stone-env.com
Fax To #:	

PCB ONLY
SOXHLET
NON SOXHLET

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PFAS 537.1	BCBs 8082	SVOCs 8270	PP-13 Metals/Sodium (total)	7470/7471	VOCs 8260	1,4 Dioxane SIM	1,4-Dioxin 1613B	Chloride 9056	COD 410.4
1	MW-01	12/14/22	13:30	Grab	GW		4	8	5			X	X	X	X	X	X	X	X	X	X
	Trip blank	12/8	Prepped		D		2					X					X				

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) blank H2O

	Date/Time:
Relinquished by: (signature)	12/14/22 15:45
Received by: (signature)	12/14/22 15:45
Relinquished by: (signature)	12/15/22 1042
Received by: (signature) VDS CY	12/15/22 10:42
Relinquished by: (signature) VDS	121622
Received by: (signature)	12/16/22 930
Relinquished by: (signature)	12/16/22 1340
Received by: (signature)	12/16 1340

Client Comments:

Detection Limit Requirements		Special Requirements	
MA			MA MCP Required
			MCP Certification Form Required
CT	09:0		CT RCP Required
			RCP Certification Form Required
			MA State DW Required
Other:	VT012	PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity

Government		Municipality		MWRA	
Federal		21 J		School	
City		Brownfield		MBTA	

WRTA

Other
- Chromatogram
- AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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East Longmeadow, MA. 01028
P: 413-525-2332
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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

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

Client Received By SET Date 12/16/22 Time 1340

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

Direct From Sample _____ Ambient _____ Melted Ice _____

Were samples within Tempurature? Within 2-6°C T By Gun # S Actual Temp - 2.1

By Blank # _____ Actual Temp - _____

Was Custody Seal In tact? NA Were Samples Tampered with? NA

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

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

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

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

Project? T ID's? T Collection Dates/Times? T

Are Sample labels filled out and legible? T

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

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? T Is there enough Volume? T

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

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

Were trip blanks received? F On COC? F

Do All Samples Have the proper pH? NA Acid NA Base NA

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

Unused Media

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

Comments:

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February 9, 2023

Rebecca Treat
Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602

Project Location: Thetford, VT
Client Job Number:
Project Number: 20-096
Laboratory Work Order Number: 22K3399

Enclosed are results of analyses for samples as received by the laboratory on November 23, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

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

Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 2/9/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22K3399

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BR-4	22K3399-01	Ground Water		-	
				EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
BR-201	22K3399-02	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
BR-202	22K3399-03	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
MW-2	22K3399-04	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
Leibon Well	22K3399-05	Drinking Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	

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Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 2/9/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22K3399

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BR-1	22K3399-06	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
BR-2	22K3399-07	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
BR-2FD	22K3399-08	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
PMCWS Well	22K3399-09	Drinking Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
BR-3	22K3399-10	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	

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Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 2/9/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22K3399

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-101D	22K3399-11	Ground Water		EPA 300.0	
				EPA 410.4	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
Trip Blank	22K3399-12	Ground Water		SW-846 8260D	

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CASE NARRATIVE SUMMARY

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

REVISED REPORT 1/11/22- Sample -05 and -09 revised to drinking water

Dioxins/Furans not reported due to lab error

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SW-846 8260D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DBCP)
B324177-BS1

trans-1,4-Dichloro-2-butene
B324177-BS1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DBCP)
22K3399-01[BR-4], 22K3399-02[BR-201], 22K3399-03[BR-202], 22K3399-04[MW-2], 22K3399-05[Leibon Well], 22K3399-06[BR-1], 22K3399-07[BR-2], 22K3399-08[BR-2FD], 22K3399-09[PMCWS Well], 22K3399-10[BR-3], 22K3399-11[MW-101D], 22K3399-12[Trip Blank], B324177-BLK1, B324177-BS1, B324177-BSD1, S079989-CCV1

Naphthalene
22K3399-01[BR-4], 22K3399-02[BR-201], 22K3399-03[BR-202], 22K3399-04[MW-2], 22K3399-05[Leibon Well], 22K3399-06[BR-1], 22K3399-07[BR-2], 22K3399-08[BR-2FD], 22K3399-09[PMCWS Well], 22K3399-10[BR-3], 22K3399-11[MW-101D], 22K3399-12[Trip Blank], B324177-BLK1, B324177-BS1, B324177-BSD1, S079989-CCV1

trans-1,4-Dichloro-2-butene
22K3399-01[BR-4], 22K3399-02[BR-201], 22K3399-03[BR-202], 22K3399-04[MW-2], 22K3399-05[Leibon Well], 22K3399-06[BR-1], 22K3399-07[BR-2], 22K3399-08[BR-2FD], 22K3399-09[PMCWS Well], 22K3399-10[BR-3], 22K3399-11[MW-101D], 22K3399-12[Trip Blank], B324177-BLK1, B324177-BS1, B324177-BSD1, S079989-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Tetrachloroethylene
B324177-BS1, B324177-BSD1, S079989-CCV1

SW-846 8270E

Qualifications:

S-26

Surrogate outside of control limits.

Analyte & Samples(s) Qualified:

1,4-Dioxane
B324191-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine
22K3399-01[BR-4], 22K3399-02[BR-201], 22K3399-03[BR-202], 22K3399-04[MW-2], 22K3399-05[Leibon Well], 22K3399-06[BR-1], 22K3399-07[BR-2], 22K3399-08[BR-2FD], 22K3399-09[PMCWS Well], 22K3399-10[BR-3], 22K3399-11[MW-101D], B324041-BLK1, B324041-BS1, B324041-BSD1, B324188-BLK1, B324188-BS1, B324188-BSD1, S080042-CCV1, S080110-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Aniline
22K3399-01[BR-4], 22K3399-02[BR-201], 22K3399-03[BR-202], 22K3399-04[MW-2], 22K3399-05[Leibon Well], 22K3399-06[BR-1], B324041-BLK1, B324041-BS1, B324041-BSD1, B324188-BLK1, B324188-BS1, B324188-BSD1, S080042-CCV1, S080110-CCV1

Benzidine
22K3399-01[BR-4], 22K3399-02[BR-201], 22K3399-03[BR-202], 22K3399-04[MW-2], 22K3399-05[Leibon Well], 22K3399-06[BR-1], B324041-BLK1, B324041-BS1, B324041-BSD1, B324188-BLK1, B324188-BS1, B324188-BSD1, S080042-CCV1, S080110-CCV1, S080214-CCV1

Hexachlorocyclopentadiene
S080214-CCV1

Pentachlorophenol
S080214-CCV1

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V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

Aniline
S080214-CCV1

Bis(2-chloroethyl)ether
S080214-CCV1

N-Nitrosodimethylamine
S080214-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

3,3-Dichlorobenzidine
S081650-ICV1

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

Kaitlyn A. Feliciano
Project Manager

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 14:23	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Tetrahydrofuran	3.7	10	0.49	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Trichloroethylene	0.21	1.0	0.19	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:23	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.2	70-130		11/29/22 14:23
Toluene-d8	97.9	70-130		11/29/22 14:23
4-Bromofluorobenzene	98.3	70-130		11/29/22 14:23

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.1	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Acenaphthylene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Acetophenone	ND	10	0.54	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Aniline	ND	5.1	0.70	µg/L	1	V-05	SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Anthracene	ND	5.1	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Benzidine	ND	20	10	µg/L	1	V-04, V-05	SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Benzo(a)anthracene	ND	5.1	0.41	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Benzo(a)pyrene	ND	5.1	0.57	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Benzo(b)fluoranthene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Benzo(g,h,i)perylene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Benzo(k)fluoranthene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Benzoic Acid	ND	10	8.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Bis(2-chloroethyl)ether	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Bis(2-chloroisopropyl)ether	ND	10	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Bis(2-Ethylhexyl)phthalate	ND	10	0.85	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Butylbenzylphthalate	ND	10	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2-Chlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Chrysene	ND	5.1	0.40	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Dibenz(a,h)anthracene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Dibenzofuran	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
1,2-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
1,3-Dichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
1,4-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
3,3-Dichlorobenzidine	ND	10	0.72	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2,4-Dimethylphenol	ND	10	0.71	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
4,6-Dinitro-2-methylphenol	ND	10	7.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Di-n-octylphthalate	ND	10	4.0	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Fluoranthene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Fluorene	ND	5.1	0.53	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Hexachlorobutadiene	ND	10	0.78	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Hexachloroethane	ND	10	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Indeno(1,2,3-cd)pyrene	ND	5.1	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Isophorone	ND	10	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
1-Methylnaphthalene	ND	5.1	0.61	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2-Methylnaphthalene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2-Methylphenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Naphthalene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2-Nitroaniline	ND	10	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2-Nitrophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
N-Nitrosodimethylamine	ND	10	0.79	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.39	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
N-Nitrosodi-n-propylamine	ND	10	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Pentachloronitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Phenanthrene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Pyrene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
Pyridine	ND	5.1	2.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
1,2,4,5-Tetrachlorobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
1,2,4-Trichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2,4,5-Trichlorophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/28/22	12/1/22 18:58	CLA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	51.3	15-110		12/1/22 18:58
Phenol-d6	35.5	15-110		12/1/22 18:58
Nitrobenzene-d5	78.2	30-130		12/1/22 18:58
2-Fluorobiphenyl	79.0	30-130		12/1/22 18:58
2,4,6-Tribromophenol	76.1	15-110		12/1/22 18:58
p-Terphenyl-d14	97.4	30-130		12/1/22 18:58

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.21	µg/L	1		SW-846 8270E	11/28/22	12/2/22 10:55	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	24.9	15-110					12/2/22 10:55

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:23	JEA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	94.7	30-150		11/30/22 11:23
Decachlorobiphenyl [2]	88.3	30-150		11/30/22 11:23
Tetrachloro-m-xylene [1]	73.0	30-150		11/30/22 11:23
Tetrachloro-m-xylene [2]	74.7	30-150		11/30/22 11:23

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Chromium	4.6	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Copper	1.9	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Lead	0.88	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 11:44	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Sodium	29	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 16:03	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:32	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:14	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-4 | Sampled: 11/21/2022 13:05

Sample ID: 22K3399-01

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	2.5	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 18:33	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	2.8	50	2.0	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 14:49	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 14:49	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.5	70-130		11/29/22 14:49
Toluene-d8	97.6	70-130		11/29/22 14:49
4-Bromofluorobenzene	98.2	70-130		11/29/22 14:49

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.1	0.53	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Acenaphthylene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Acetophenone	ND	10	0.54	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Aniline	ND	5.1	0.71	µg/L	1	V-05	SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Anthracene	ND	5.1	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Benzidine	ND	20	11	µg/L	1	V-04, V-05	SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Benzo(a)anthracene	ND	5.1	0.42	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Benzo(a)pyrene	ND	5.1	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Benzo(b)fluoranthene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Benzo(g,h,i)perylene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Benzo(k)fluoranthene	ND	5.1	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Benzoic Acid	ND	10	8.6	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Bis(2-chloroethoxy)methane	ND	10	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Bis(2-chloroethyl)ether	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Bis(2-chloroisopropyl)ether	ND	10	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Bis(2-Ethylhexyl)phthalate	ND	10	0.86	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
4-Bromophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Butylbenzylphthalate	ND	10	0.69	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
4-Chloroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
4-Chloro-3-methylphenol	ND	10	0.57	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2-Chloronaphthalene	ND	10	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2-Chlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
4-Chlorophenylphenylether	ND	10	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Chrysene	ND	5.1	0.40	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Dibenz(a,h)anthracene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Dibenzofuran	ND	5.1	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Di-n-butylphthalate	ND	10	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
1,2-Dichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
1,3-Dichlorobenzene	ND	5.1	0.69	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
1,4-Dichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
3,3-Dichlorobenzidine	ND	10	0.73	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2,4-Dichlorophenol	ND	10	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Diethylphthalate	ND	10	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2,4-Dimethylphenol	ND	10	0.72	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
4,6-Dinitro-2-methylphenol	ND	10	7.2	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2,4-Dinitrophenol	ND	10	8.2	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2,4-Dinitrotoluene	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2,6-Dinitrotoluene	ND	10	0.53	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Di-n-octylphthalate	ND	10	4.0	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Fluoranthene	ND	5.1	0.44	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Fluorene	ND	5.1	0.53	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Hexachlorobutadiene	ND	10	0.79	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Hexachlorocyclopentadiene	ND	10	3.8	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Hexachloroethane	ND	10	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Indeno(1,2,3-cd)pyrene	ND	5.1	0.76	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Isophorone	ND	10	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
1-Methylnaphthalene	ND	5.1	0.61	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2-Methylnaphthalene	ND	5.1	0.71	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2-Methylphenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
3/4-Methylphenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Naphthalene	ND	5.1	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2-Nitroaniline	ND	10	0.71	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
3-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
4-Nitroaniline	ND	10	0.61	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Nitrobenzene	ND	10	0.64	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2-Nitrophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
N-Nitrosodimethylamine	ND	10	0.80	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.39	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
N-Nitrosodi-n-propylamine	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Pentachloronitrobenzene	ND	10	0.64	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Pentachlorophenol	ND	10	3.6	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Phenanthrene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Pyrene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
Pyridine	ND	5.1	2.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
1,2,4,5-Tetrachlorobenzene	ND	10	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
1,2,4-Trichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2,4,5-Trichlorophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA
2,4,6-Trichlorophenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:22	CLA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	50.0	15-110		12/1/22 19:22
Phenol-d6	34.0	15-110		12/1/22 19:22
Nitrobenzene-d5	72.6	30-130		12/1/22 19:22
2-Fluorobiphenyl	73.2	30-130		12/1/22 19:22
2,4,6-Tribromophenol	63.8	15-110		12/1/22 19:22
p-Terphenyl-d14	88.8	30-130		12/1/22 19:22

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.21	µg/L	1		SW-846 8270E	11/28/22	12/2/22 11:15	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual					
1,4-Dioxane-d8	26.3	15-110					12/2/22 11:15	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1221 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1232 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1242 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1248 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1254 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1260 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1262 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA
Aroclor-1268 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:35	JEA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	95.0	30-150		11/30/22 11:35
Decachlorobiphenyl [2]	88.3	30-150		11/30/22 11:35
Tetrachloro-m-xylene [1]	68.4	30-150		11/30/22 11:35
Tetrachloro-m-xylene [2]	70.5	30-150		11/30/22 11:35

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Chromium	1.6	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Copper	1.9	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 11:46	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Sodium	5.8	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 16:08	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:35	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:17	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-201 | Sampled: 11/21/2022 12:50

Sample ID: 22K3399-02

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	ND	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 19:18	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 15:16	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:16	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.5	70-130		11/29/22 15:16
Toluene-d8	96.8	70-130		11/29/22 15:16
4-Bromofluorobenzene	98.8	70-130		11/29/22 15:16

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.1	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Acenaphthylene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Acetophenone	ND	10	0.54	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Aniline	ND	5.1	0.70	µg/L	1	V-05	SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Anthracene	ND	5.1	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Benzidine	ND	20	10	µg/L	1	V-04, V-05	SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Benzo(a)anthracene	ND	5.1	0.41	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Benzo(a)pyrene	ND	5.1	0.57	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Benzo(b)fluoranthene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Benzo(g,h,i)perylene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Benzo(k)fluoranthene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Benzoic Acid	ND	10	8.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Bis(2-chloroethyl)ether	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Bis(2-chloroisopropyl)ether	ND	10	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Bis(2-Ethylhexyl)phthalate	ND	10	0.85	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Butylbenzylphthalate	ND	10	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2-Chlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Chrysene	ND	5.1	0.40	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Dibenz(a,h)anthracene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Dibenzofuran	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
1,2-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
1,3-Dichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
1,4-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
3,3-Dichlorobenzidine	ND	10	0.72	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2,4-Dimethylphenol	ND	10	0.71	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
4,6-Dinitro-2-methylphenol	ND	10	7.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Di-n-octylphthalate	ND	10	4.0	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Fluoranthene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Fluorene	ND	5.1	0.53	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Hexachlorobutadiene	ND	10	0.78	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Hexachloroethane	ND	10	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Indeno(1,2,3-cd)pyrene	ND	5.1	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Isophorone	ND	10	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
1-Methylnaphthalene	ND	5.1	0.61	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2-Methylnaphthalene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2-Methylphenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Naphthalene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2-Nitroaniline	ND	10	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2-Nitrophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
N-Nitrosodimethylamine	ND	10	0.79	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.39	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
N-Nitrosodi-n-propylamine	ND	10	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Pentachloronitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Phenanthrene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Pyrene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
Pyridine	ND	5.1	2.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
1,2,4,5-Tetrachlorobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
1,2,4-Trichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2,4,5-Trichlorophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/28/22	12/1/22 19:46	CLA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	52.3	15-110		12/1/22 19:46
Phenol-d6	35.8	15-110		12/1/22 19:46
Nitrobenzene-d5	77.7	30-130		12/1/22 19:46
2-Fluorobiphenyl	80.6	30-130		12/1/22 19:46
2,4,6-Tribromophenol	73.7	15-110		12/1/22 19:46
p-Terphenyl-d14	95.3	30-130		12/1/22 19:46

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.21	µg/L	1		SW-846 8270E	11/28/22	12/2/22 11:34	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	24.6	15-110					12/2/22 11:34

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/28/22	11/30/22 11:47	JEA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	97.7	30-150		11/30/22 11:47
Decachlorobiphenyl [2]	90.8	30-150		11/30/22 11:47
Tetrachloro-m-xylene [1]	72.5	30-150		11/30/22 11:47
Tetrachloro-m-xylene [2]	74.9	30-150		11/30/22 11:47

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Arsenic	1.5	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Chromium	3.8	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Copper	7.2	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 11:48	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Sodium	3.5	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 16:26	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:38	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:19	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-202 | Sampled: 11/21/2022 14:45

Sample ID: 22K3399-03

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	ND	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 19:40	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 15:42	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 15:42	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.5	70-130		11/29/22 15:42
Toluene-d8	97.3	70-130		11/29/22 15:42
4-Bromofluorobenzene	98.6	70-130		11/29/22 15:42

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.1	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Acenaphthylene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Acetophenone	ND	10	0.54	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Aniline	ND	5.1	0.70	µg/L	1	V-05	SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Anthracene	ND	5.1	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Benzidine	ND	20	10	µg/L	1	V-04, V-05	SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Benzo(a)anthracene	ND	5.1	0.41	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Benzo(a)pyrene	ND	5.1	0.57	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Benzo(b)fluoranthene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Benzo(g,h,i)perylene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Benzo(k)fluoranthene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Benzoic Acid	ND	10	8.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Bis(2-chloroethyl)ether	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Bis(2-chloroisopropyl)ether	ND	10	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Bis(2-Ethylhexyl)phthalate	ND	10	0.85	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Butylbenzylphthalate	ND	10	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2-Chlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Chrysene	ND	5.1	0.40	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Dibenz(a,h)anthracene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Dibenzofuran	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
1,2-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
1,3-Dichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
1,4-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
3,3-Dichlorobenzidine	ND	10	0.72	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2,4-Dimethylphenol	ND	10	0.71	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
4,6-Dinitro-2-methylphenol	ND	10	7.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Di-n-octylphthalate	ND	10	4.0	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Fluoranthene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Fluorene	ND	5.1	0.53	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Hexachlorobutadiene	ND	10	0.78	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Hexachloroethane	ND	10	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Indeno(1,2,3-cd)pyrene	ND	5.1	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Isophorone	ND	10	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
1-Methylnaphthalene	ND	5.1	0.61	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2-Methylnaphthalene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2-Methylphenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Naphthalene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2-Nitroaniline	ND	10	0.70	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2-Nitrophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
N-Nitrosodimethylamine	ND	10	0.79	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.39	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
N-Nitrosodi-n-propylamine	ND	10	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Pentachloronitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Phenanthrene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Pyrene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
Pyridine	ND	5.1	2.5	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
1,2,4,5-Tetrachlorobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
1,2,4-Trichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2,4,5-Trichlorophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:10	CLA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	52.0	15-110		12/1/22 20:10
Phenol-d6	35.6	15-110		12/1/22 20:10
Nitrobenzene-d5	79.5	30-130		12/1/22 20:10
2-Fluorobiphenyl	82.0	30-130		12/1/22 20:10
2,4,6-Tribromophenol	77.6	15-110		12/1/22 20:10
p-Terphenyl-d14	98.3	30-130		12/1/22 20:10

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.20	µg/L	1		SW-846 8270E	11/28/22	12/2/22 11:53	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	25.3	15-110					12/2/22 11:53

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1221 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1232 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1242 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1248 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1254 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1260 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1262 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA
Aroclor-1268 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:00	JEA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	90.0	30-150		11/30/22 12:00
Decachlorobiphenyl [2]	83.0	30-150		11/30/22 12:00
Tetrachloro-m-xylene [1]	61.5	30-150		11/30/22 12:00
Tetrachloro-m-xylene [2]	62.6	30-150		11/30/22 12:00

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Chromium	5.1	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Copper	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 11:49	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Sodium	2.2	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 16:33	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:41	QNW
Zinc	62	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:22	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-2 | Sampled: 11/21/2022 16:50

Sample ID: 22K3399-04

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	ND	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 20:02	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 16:08	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:08	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.4	70-130		11/29/22 16:08
Toluene-d8	96.6	70-130		11/29/22 16:08
4-Bromofluorobenzene	98.8	70-130		11/29/22 16:08

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Acenaphthylene	ND	4.8	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Acetophenone	ND	9.7	0.51	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Aniline	ND	4.8	0.67	µg/L	1	V-05	SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Anthracene	ND	4.8	0.44	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Benzidine	ND	19	10	µg/L	1	V-04, V-05	SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Benzo(a)anthracene	ND	4.8	0.39	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Benzo(a)pyrene	ND	4.8	0.55	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Benzo(b)fluoranthene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Benzo(g,h,i)perylene	ND	4.8	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Benzo(k)fluoranthene	ND	4.8	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Benzoic Acid	ND	9.7	8.1	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Bis(2-chloroethoxy)methane	ND	9.7	0.44	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Bis(2-chloroethyl)ether	ND	9.7	0.55	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Bis(2-chloroisopropyl)ether	ND	9.7	0.66	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Bis(2-Ethylhexyl)phthalate	ND	9.7	0.81	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
4-Bromophenylphenylether	ND	9.7	0.45	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Butylbenzylphthalate	ND	9.7	0.65	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Carbazole	ND	9.7	0.41	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
4-Chloroaniline	ND	9.7	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
4-Chloro-3-methylphenol	ND	9.7	0.54	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2-Chloronaphthalene	ND	9.7	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2-Chlorophenol	ND	9.7	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
4-Chlorophenylphenylether	ND	9.7	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Chrysene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Dibenz(a,h)anthracene	ND	4.8	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Dibenzofuran	ND	4.8	0.47	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Di-n-butylphthalate	ND	9.7	0.44	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
1,2-Dichlorobenzene	ND	4.8	0.64	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
1,3-Dichlorobenzene	ND	4.8	0.65	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
1,4-Dichlorobenzene	ND	4.8	0.64	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
3,3-Dichlorobenzidine	ND	9.7	0.69	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2,4-Dichlorophenol	ND	9.7	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Diethylphthalate	ND	9.7	0.40	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2,4-Dimethylphenol	ND	9.7	0.68	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Dimethylphthalate	ND	9.7	0.36	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
4,6-Dinitro-2-methylphenol	ND	9.7	6.8	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2,4-Dinitrophenol	ND	9.7	7.8	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2,4-Dinitrotoluene	ND	9.7	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2,6-Dinitrotoluene	ND	9.7	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Di-n-octylphthalate	ND	9.7	3.8	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
1,2-Diphenylhydrazine/Azobenzene	ND	9.7	0.56	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Fluoranthene	ND	4.8	0.42	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Fluorene	ND	4.8	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.7	0.49	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Hexachlorobutadiene	ND	9.7	0.75	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Hexachlorocyclopentadiene	ND	9.7	3.6	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Hexachloroethane	ND	9.7	0.71	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Indeno(1,2,3-cd)pyrene	ND	4.8	0.72	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Isophorone	ND	9.7	0.53	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
1-Methylnaphthalene	ND	4.8	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2-Methylnaphthalene	ND	4.8	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2-Methylphenol	ND	9.7	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
3/4-Methylphenol	ND	9.7	0.44	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Naphthalene	ND	4.8	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2-Nitroaniline	ND	9.7	0.67	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
3-Nitroaniline	ND	9.7	0.57	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
4-Nitroaniline	ND	9.7	0.58	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Nitrobenzene	ND	9.7	0.60	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2-Nitrophenol	ND	9.7	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
4-Nitrophenol	ND	9.7	2.0	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
N-Nitrosodimethylamine	ND	9.7	0.76	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
N-Nitrosodiphenylamine/Diphenylamine	ND	9.7	0.37	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
N-Nitrosodi-n-propylamine	ND	9.7	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Pentachloronitrobenzene	ND	9.7	0.60	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Pentachlorophenol	ND	9.7	3.4	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Phenanthrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Phenol	ND	9.7	0.22	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Pyrene	ND	4.8	0.59	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
Pyridine	ND	4.8	2.4	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
1,2,4,5-Tetrachlorobenzene	ND	9.7	0.63	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
1,2,4-Trichlorobenzene	ND	4.8	0.65	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2,4,5-Trichlorophenol	ND	9.7	0.50	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA
2,4,6-Trichlorophenol	ND	9.7	0.44	µg/L	1		SW-846 8270E	11/28/22	12/1/22 20:33	CLA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	53.5	15-110		12/1/22 20:33
Phenol-d6	36.0	15-110		12/1/22 20:33
Nitrobenzene-d5	80.5	30-130		12/1/22 20:33
2-Fluorobiphenyl	80.9	30-130		12/1/22 20:33
2,4,6-Tribromophenol	75.3	15-110		12/1/22 20:33
p-Terphenyl-d14	96.0	30-130		12/1/22 20:33

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.19	µg/L	1		SW-846 8270E	11/28/22	12/6/22 1:17	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual					
1,4-Dioxane-d8	27.2	15-110					12/6/22 1:17	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1221 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1232 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1242 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1248 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1254 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1260 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1262 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA
Aroclor-1268 [1]	ND	0.19	µg/L	1		SW-846 8082A	11/28/22	11/30/22 12:12	JEA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	97.6	30-150		11/30/22 12:12
Decachlorobiphenyl [2]	89.4	30-150		11/30/22 12:12
Tetrachloro-m-xylene [1]	72.0	30-150		11/30/22 12:12
Tetrachloro-m-xylene [2]	73.8	30-150		11/30/22 12:12

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Chromium	3.8	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Copper	9.0	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Lead	2.3	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 11:57	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Sodium	19	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 16:38	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:44	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:25	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Leibon Well | Sampled: 11/21/2022 16:05

Sample ID: 22K3399-05

Sample Matrix: Drinking Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	43	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 20:25	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 16:34	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 16:34	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.0	70-130		11/29/22 16:34
Toluene-d8	97.6	70-130		11/29/22 16:34
4-Bromofluorobenzene	99.1	70-130		11/29/22 16:34

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Acenaphthylene	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Acetophenone	ND	10	0.53	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Aniline	ND	5.0	0.70	µg/L	1	V-05	SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Anthracene	ND	5.0	0.46	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Benzidine	ND	20	10	µg/L	1	V-04, V-05	SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Benzo(a)anthracene	ND	5.0	0.41	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Benzo(a)pyrene	ND	5.0	0.57	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Benzo(b)fluoranthene	ND	5.0	0.47	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Benzo(g,h,i)perylene	ND	5.0	0.62	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Benzo(k)fluoranthene	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Benzoic Acid	ND	10	8.5	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Bis(2-chloroethyl)ether	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Bis(2-chloroisopropyl)ether	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Bis(2-Ethylhexyl)phthalate	ND	10	0.84	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Butylbenzylphthalate	ND	10	0.68	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2-Chlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Chrysene	ND	5.0	0.40	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Dibenz(a,h)anthracene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Dibenzofuran	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
1,2-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
1,3-Dichlorobenzene	ND	5.0	0.68	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
1,4-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
3,3-Dichlorobenzidine	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2,4-Dimethylphenol	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
4,6-Dinitro-2-methylphenol	ND	10	7.1	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Di-n-octylphthalate	ND	10	4.0	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Fluoranthene	ND	5.0	0.43	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Fluorene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Hexachlorobutadiene	ND	10	0.78	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Hexachloroethane	ND	10	0.74	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Indeno(1,2,3-cd)pyrene	ND	5.0	0.75	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Isophorone	ND	10	0.55	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
1-Methylnaphthalene	ND	5.0	0.60	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2-Methylnaphthalene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2-Methylphenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Naphthalene	ND	5.0	0.62	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2-Nitroaniline	ND	10	0.70	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2-Nitrophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
N-Nitrosodimethylamine	ND	10	0.79	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
N-Nitrosodi-n-propylamine	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Pentachloronitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Phenanthrene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Pyrene	ND	5.0	0.62	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
Pyridine	ND	5.0	2.5	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
1,2,4,5-Tetrachlorobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
1,2,4-Trichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2,4,5-Trichlorophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/29/22	12/1/22 17:24	CLA

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	51.4	15-110		12/1/22 17:24
Phenol-d6	35.3	15-110		12/1/22 17:24
Nitrobenzene-d5	74.9	30-130		12/1/22 17:24
2-Fluorobiphenyl	74.7	30-130		12/1/22 17:24
2,4,6-Tribromophenol	67.6	15-110		12/1/22 17:24
p-Terphenyl-d14	83.0	30-130		12/1/22 17:24

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.20	µg/L	1		SW-846 8270E	11/29/22	12/2/22 13:12	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	24.8	15-110				12/2/22 13:12	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:34	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.2	30-150		12/1/22 15:34
Decachlorobiphenyl [2]	83.8	30-150		12/1/22 15:34
Tetrachloro-m-xylene [1]	77.5	30-150		12/1/22 15:34
Tetrachloro-m-xylene [2]	78.3	30-150		12/1/22 15:34

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Chromium	2.3	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Copper	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 11:58	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Sodium	4.1	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 16:45	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:47	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:28	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-1 | Sampled: 11/22/2022 10:25

Sample ID: 22K3399-06

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	1.2	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 21:09	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:00	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:00	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.3	70-130		11/29/22 17:00
Toluene-d8	97.8	70-130		11/29/22 17:00
4-Bromofluorobenzene	99.2	70-130		11/29/22 17:00

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Acenaphthylene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Acetophenone	ND	10	0.53	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Aniline	ND	5.0	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Anthracene	ND	5.0	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Benzidine	ND	20	10	µg/L	1	V-04	SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Benzo(a)anthracene	ND	5.0	0.41	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Benzo(a)pyrene	ND	5.0	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Benzo(b)fluoranthene	ND	5.0	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Benzo(g,h,i)perylene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Benzo(k)fluoranthene	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Benzoic Acid	ND	10	8.4	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Bis(2-chloroethyl)ether	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Bis(2-chloroisopropyl)ether	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Bis(2-Ethylhexyl)phthalate	ND	10	0.84	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Butylbenzylphthalate	ND	10	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2-Chlorophenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Chrysene	ND	5.0	0.40	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Dibenz(a,h)anthracene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Dibenzofuran	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
1,2-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
1,3-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
1,4-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
3,3-Dichlorobenzidine	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2,4-Dimethylphenol	ND	10	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
4,6-Dinitro-2-methylphenol	ND	10	7.0	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2,4-Dinitrotoluene	ND	10	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Di-n-octylphthalate	ND	10	3.9	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Fluoranthene	ND	5.0	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Fluorene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Hexachlorobutadiene	ND	10	0.77	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Hexachloroethane	ND	10	0.74	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Indeno(1,2,3-cd)pyrene	ND	5.0	0.74	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Isophorone	ND	10	0.55	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
1-Methylnaphthalene	ND	5.0	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2-Methylnaphthalene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2-Methylphenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Naphthalene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2-Nitroaniline	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2-Nitrophenol	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
N-Nitrosodimethylamine	ND	10	0.78	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
N-Nitrosodi-n-propylamine	ND	10	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Pentachloronitrobenzene	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Phenanthrene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Pyrene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
Pyridine	ND	5.0	2.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
1,2,4,5-Tetrachlorobenzene	ND	10	0.65	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
1,2,4-Trichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2,4,5-Trichlorophenol	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:11	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	45.1	15-110		12/2/22 16:11
Phenol-d6	32.2	15-110		12/2/22 16:11
Nitrobenzene-d5	71.0	30-130		12/2/22 16:11
2-Fluorobiphenyl	65.1	30-130		12/2/22 16:11
2,4,6-Tribromophenol	65.1	15-110		12/2/22 16:11
p-Terphenyl-d14	76.0	30-130		12/2/22 16:11

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.20	µg/L	1		SW-846 8270E	11/29/22	12/2/22 13:31	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	21.6	15-110					12/2/22 13:31

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 15:52	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	88.4	30-150		12/1/22 15:52
Decachlorobiphenyl [2]	87.1	30-150		12/1/22 15:52
Tetrachloro-m-xylene [1]	80.5	30-150		12/1/22 15:52
Tetrachloro-m-xylene [2]	81.4	30-150		12/1/22 15:52

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Chromium	1.4	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Copper	2.5	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 12:00	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Sodium	2.2	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 16:55	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:49	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:31	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2 | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-07

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	ND	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 21:31	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:27	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:27	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.0	70-130		11/29/22 17:27
Toluene-d8	97.0	70-130		11/29/22 17:27
4-Bromofluorobenzene	98.3	70-130		11/29/22 17:27

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.1	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Acenaphthylene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Acetophenone	ND	10	0.54	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Aniline	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Anthracene	ND	5.1	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Benzidine	ND	20	10	µg/L	1	V-04	SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Benzo(a)anthracene	ND	5.1	0.41	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Benzo(a)pyrene	ND	5.1	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Benzo(b)fluoranthene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Benzo(g,h,i)perylene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Benzo(k)fluoranthene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Benzoic Acid	ND	10	8.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Bis(2-chloroethyl)ether	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Bis(2-chloroisopropyl)ether	ND	10	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Bis(2-Ethylhexyl)phthalate	ND	10	0.85	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Butylbenzylphthalate	ND	10	0.68	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2-Chlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Chrysene	ND	5.1	0.40	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Dibenz(a,h)anthracene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Dibenzofuran	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
1,2-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
1,3-Dichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
1,4-Dichlorobenzene	ND	5.1	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
3,3-Dichlorobenzidine	ND	10	0.72	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2,4-Dimethylphenol	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
4,6-Dinitro-2-methylphenol	ND	10	7.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Di-n-octylphthalate	ND	10	4.0	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Fluoranthene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Fluorene	ND	5.1	0.53	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Hexachlorobutadiene	ND	10	0.78	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Hexachloroethane	ND	10	0.75	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Indeno(1,2,3-cd)pyrene	ND	5.1	0.75	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Isophorone	ND	10	0.56	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
1-Methylnaphthalene	ND	5.1	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2-Methylnaphthalene	ND	5.1	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2-Methylphenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Naphthalene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2-Nitroaniline	ND	10	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2-Nitrophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
N-Nitrosodimethylamine	ND	10	0.79	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.39	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
N-Nitrosodi-n-propylamine	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Pentachloronitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Phenanthrene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Pyrene	ND	5.1	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
Pyridine	ND	5.1	2.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
1,2,4,5-Tetrachlorobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
1,2,4-Trichlorobenzene	ND	5.1	0.68	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2,4,5-Trichlorophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:31	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	43.6	15-110		12/2/22 16:31
Phenol-d6	31.9	15-110		12/2/22 16:31
Nitrobenzene-d5	72.2	30-130		12/2/22 16:31
2-Fluorobiphenyl	65.3	30-130		12/2/22 16:31
2,4,6-Tribromophenol	66.7	15-110		12/2/22 16:31
p-Terphenyl-d14	77.5	30-130		12/2/22 16:31

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.20	µg/L	1		SW-846 8270E	11/29/22	12/2/22 13:51	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	24.5	15-110					12/2/22 13:51

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1221 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1232 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1242 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1248 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1254 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1260 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1262 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG
Aroclor-1268 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:09	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	89.0	30-150		12/1/22 16:09
Decachlorobiphenyl [2]	86.7	30-150		12/1/22 16:09
Tetrachloro-m-xylene [1]	83.3	30-150		12/1/22 16:09
Tetrachloro-m-xylene [2]	84.2	30-150		12/1/22 16:09

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Chromium	1.2	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Copper	3.7	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 12:02	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Sodium	2.2	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 17:01	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:52	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:39	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-2FD | Sampled: 11/22/2022 12:00

Sample ID: 22K3399-08

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	ND	1.0	mg/L	1		EPA 300.0	12/2/22	12/2/22 21:54	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 17:53	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 17:53	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.4	70-130		11/29/22 17:53
Toluene-d8	97.5	70-130		11/29/22 17:53
4-Bromofluorobenzene	98.7	70-130		11/29/22 17:53

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Acenaphthylene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Acetophenone	ND	10	0.53	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Aniline	ND	5.0	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Anthracene	ND	5.0	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Benzidine	ND	20	10	µg/L	1	V-04	SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Benzo(a)anthracene	ND	5.0	0.41	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Benzo(a)pyrene	ND	5.0	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Benzo(b)fluoranthene	ND	5.0	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Benzo(g,h,i)perylene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Benzo(k)fluoranthene	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Benzoic Acid	ND	10	8.4	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Bis(2-chloroethyl)ether	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Bis(2-chloroisopropyl)ether	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Bis(2-Ethylhexyl)phthalate	ND	10	0.84	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Butylbenzylphthalate	ND	10	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2-Chlorophenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Chrysene	ND	5.0	0.40	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Dibenz(a,h)anthracene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Dibenzofuran	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
1,2-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
1,3-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
1,4-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
3,3-Dichlorobenzidine	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2,4-Dimethylphenol	ND	10	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
4,6-Dinitro-2-methylphenol	ND	10	7.0	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2,4-Dinitrotoluene	ND	10	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Di-n-octylphthalate	ND	10	3.9	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Fluoranthene	ND	5.0	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Fluorene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Hexachlorobutadiene	ND	10	0.77	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Hexachloroethane	ND	10	0.74	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Indeno(1,2,3-cd)pyrene	ND	5.0	0.74	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Isophorone	ND	10	0.55	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
1-Methylnaphthalene	ND	5.0	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2-Methylnaphthalene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2-Methylphenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Naphthalene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2-Nitroaniline	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2-Nitrophenol	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
N-Nitrosodimethylamine	ND	10	0.78	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
N-Nitrosodi-n-propylamine	ND	10	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Pentachloronitrobenzene	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Phenanthrene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Pyrene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
Pyridine	ND	5.0	2.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
1,2,4,5-Tetrachlorobenzene	ND	10	0.65	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
1,2,4-Trichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2,4,5-Trichlorophenol	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/29/22	12/2/22 16:52	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	48.3	15-110		12/2/22 16:52
Phenol-d6	35.3	15-110		12/2/22 16:52
Nitrobenzene-d5	84.1	30-130		12/2/22 16:52
2-Fluorobiphenyl	78.4	30-130		12/2/22 16:52
2,4,6-Tribromophenol	81.7	15-110		12/2/22 16:52
p-Terphenyl-d14	94.3	30-130		12/2/22 16:52

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.20	µg/L	1		SW-846 8270E	11/29/22	12/2/22 14:10	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual					
1,4-Dioxane-d8	25.8	15-110						12/2/22 14:10

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/1/22 16:27	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	88.7	30-150		12/1/22 16:27
Decachlorobiphenyl [2]	86.8	30-150		12/1/22 16:27
Tetrachloro-m-xylene [1]	85.2	30-150		12/1/22 16:27
Tetrachloro-m-xylene [2]	86.1	30-150		12/1/22 16:27

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Arsenic	4.1	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Chromium	1.3	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Copper	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 12:04	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Sodium	5.3	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 17:06	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:55	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:42	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: PMCWS Well | Sampled: 11/22/2022 14:40

Sample ID: 22K3399-09

Sample Matrix: Drinking Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	1200	50	mg/L	50		EPA 300.0	12/3/22	12/3/22 16:13	IS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	2.7	50	2.0	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Benzene	0.21	1.0	0.20	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Chlorobenzene	0.27	1.0	0.11	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,4-Dichlorobenzene	0.49	1.0	0.13	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1-Dichloroethane	0.23	1.0	0.14	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Diethyl Ether	3.8	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Methyl tert-Butyl Ether (MTBE)	0.27	1.0	0.17	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Tetrahydrofuran	1.4	10	0.49	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Toluene	0.46	1.0	0.22	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:19	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.8	70-130		11/29/22 18:19
Toluene-d8	97.7	70-130		11/29/22 18:19
4-Bromofluorobenzene	97.8	70-130		11/29/22 18:19

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Acenaphthylene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Acetophenone	ND	10	0.53	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Aniline	ND	5.0	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Anthracene	ND	5.0	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Benzidine	ND	20	10	µg/L	1	V-04	SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Benzo(a)anthracene	ND	5.0	0.41	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Benzo(a)pyrene	ND	5.0	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Benzo(b)fluoranthene	ND	5.0	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Benzo(g,h,i)perylene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Benzo(k)fluoranthene	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Benzoic Acid	ND	10	8.4	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Bis(2-chloroethyl)ether	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Bis(2-chloroisopropyl)ether	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Bis(2-Ethylhexyl)phthalate	ND	10	0.84	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Butylbenzylphthalate	ND	10	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2-Chlorophenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Chrysene	ND	5.0	0.40	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Dibenz(a,h)anthracene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Dibenzofuran	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
1,2-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
1,3-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
1,4-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
3,3-Dichlorobenzidine	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2,4-Dimethylphenol	ND	10	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
4,6-Dinitro-2-methylphenol	ND	10	7.0	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2,4-Dinitrotoluene	ND	10	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Di-n-octylphthalate	ND	10	3.9	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Fluoranthene	ND	5.0	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Fluorene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Hexachlorobutadiene	ND	10	0.77	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Hexachloroethane	ND	10	0.74	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Indeno(1,2,3-cd)pyrene	ND	5.0	0.74	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Isophorone	ND	10	0.55	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
1-Methylnaphthalene	ND	5.0	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2-Methylnaphthalene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2-Methylphenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Naphthalene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2-Nitroaniline	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2-Nitrophenol	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
N-Nitrosodimethylamine	ND	10	0.78	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
N-Nitrosodi-n-propylamine	ND	10	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Pentachloronitrobenzene	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Phenanthrene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Pyrene	ND	5.0	0.61	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
Pyridine	ND	5.0	2.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
1,2,4,5-Tetrachlorobenzene	ND	10	0.65	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
1,2,4-Trichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2,4,5-Trichlorophenol	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:13	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	48.0	15-110		12/2/22 17:13
Phenol-d6	35.4	15-110		12/2/22 17:13
Nitrobenzene-d5	77.3	30-130		12/2/22 17:13
2-Fluorobiphenyl	72.9	30-130		12/2/22 17:13
2,4,6-Tribromophenol	74.9	15-110		12/2/22 17:13
p-Terphenyl-d14	86.2	30-130		12/2/22 17:13

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	2.0	0.20	µg/L	1		SW-846 8270E	11/29/22	12/2/22 14:30	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	21.5	15-110				12/2/22 14:30	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1221 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1232 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1242 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1248 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1254 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1260 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1262 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG
Aroclor-1268 [1]	ND	0.21	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:31	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	37.1	30-150		12/2/22 8:31
Decachlorobiphenyl [2]	35.2	30-150		12/2/22 8:31
Tetrachloro-m-xylene [1]	62.6	30-150		12/2/22 8:31
Tetrachloro-m-xylene [2]	62.8	30-150		12/2/22 8:31

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Chromium	1.1	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Copper	37	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Lead	1.0	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 12:06	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Sodium	82	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 17:22	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 14:58	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:45	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: BR-3 | Sampled: 11/22/2022 15:30

Sample ID: 22K3399-10

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	11/29/22	11/29/22 13:10	DRA
Chloride	350	25	mg/L	25		EPA 300.0	12/3/22	12/3/22 16:36	IS

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Benzene	1.0	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
sec-Butylbenzene	0.23	1.0	0.11	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:45	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Chlorobenzene	1.7	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2-Dichlorobenzene	0.25	1.0	0.12	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,4-Dichlorobenzene	2.9	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Dichlorodifluoromethane (Freon 12)	0.25	2.0	0.19	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1-Dichloroethane	1.6	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Diethyl Ether	18	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Isopropylbenzene (Cumene)	0.18	1.0	0.11	µg/L	1	J	SW-846 8260D	11/29/22	11/29/22 18:45	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Methyl tert-Butyl Ether (MTBE)	1.5	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Naphthalene	0.32	2.0	0.24	µg/L	1	V-05, J	SW-846 8260D	11/29/22	11/29/22 18:45	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 18:45	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.2	70-130		11/29/22 18:45
Toluene-d8	97.0	70-130		11/29/22 18:45
4-Bromofluorobenzene	98.7	70-130		11/29/22 18:45

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Acenaphthylene	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Acetophenone	ND	10	0.53	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Aniline	ND	5.0	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Anthracene	ND	5.0	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Benzidine	ND	20	10	µg/L	1	V-04	SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Benzo(a)anthracene	ND	5.0	0.41	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Benzo(a)pyrene	ND	5.0	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Benzo(b)fluoranthene	ND	5.0	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Benzo(g,h,i)perylene	ND	5.0	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Benzo(k)fluoranthene	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Benzoic Acid	ND	10	8.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Bis(2-chloroethoxy)methane	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Bis(2-chloroethyl)ether	ND	10	0.57	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Bis(2-chloroisopropyl)ether	ND	10	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Bis(2-Ethylhexyl)phthalate	ND	10	0.84	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
4-Bromophenylphenylether	ND	10	0.47	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Butylbenzylphthalate	ND	10	0.68	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
4-Chloroaniline	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2-Chloronaphthalene	ND	10	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2-Chlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
4-Chlorophenylphenylether	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Chrysene	ND	5.0	0.40	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Dibenz(a,h)anthracene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Dibenzofuran	ND	5.0	0.49	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Di-n-butylphthalate	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
1,2-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
1,3-Dichlorobenzene	ND	5.0	0.68	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
1,4-Dichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
3,3-Dichlorobenzidine	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2,4-Dichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Diethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2,4-Dimethylphenol	ND	10	0.71	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Dimethylphthalate	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
4,6-Dinitro-2-methylphenol	ND	10	7.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2,4-Dinitrophenol	ND	10	8.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Di-n-octylphthalate	ND	10	4.0	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.58	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Fluoranthene	ND	5.0	0.43	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Fluorene	ND	5.0	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.51	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Hexachlorobutadiene	ND	10	0.78	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Hexachlorocyclopentadiene	ND	10	3.7	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Hexachloroethane	ND	10	0.74	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Indeno(1,2,3-cd)pyrene	ND	5.0	0.75	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Isophorone	ND	10	0.55	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
1-Methylnaphthalene	ND	5.0	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2-Methylnaphthalene	ND	5.0	0.69	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2-Methylphenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
3/4-Methylphenol	ND	10	0.46	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Naphthalene	ND	5.0	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2-Nitroaniline	ND	10	0.70	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
3-Nitroaniline	ND	10	0.59	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
4-Nitroaniline	ND	10	0.60	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Nitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2-Nitrophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
N-Nitrosodimethylamine	ND	10	0.79	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.38	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
N-Nitrosodi-n-propylamine	ND	10	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Pentachloronitrobenzene	ND	10	0.63	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Pentachlorophenol	ND	10	3.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Phenanthrene	ND	5.0	0.48	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Phenol	ND	10	0.23	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Pyrene	ND	5.0	0.62	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
Pyridine	ND	5.0	2.5	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
1,2,4,5-Tetrachlorobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
1,2,4-Trichlorobenzene	ND	5.0	0.67	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2,4,5-Trichlorophenol	ND	10	0.52	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2
2,4,6-Trichlorophenol	ND	10	0.45	µg/L	1		SW-846 8270E	11/29/22	12/2/22 17:33	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	47.6	15-110		12/2/22 17:33
Phenol-d6	35.1	15-110		12/2/22 17:33
Nitrobenzene-d5	80.1	30-130		12/2/22 17:33
2-Fluorobiphenyl	72.8	30-130		12/2/22 17:33
2,4,6-Tribromophenol	77.7	15-110		12/2/22 17:33
p-Terphenyl-d14	87.9	30-130		12/2/22 17:33

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	2.6	0.21	µg/L	1		SW-846 8270E	11/29/22	12/2/22 14:50	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	23.8	15-110				12/2/22 14:50	

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	11/29/22	12/2/22 8:43	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	66.9	30-150		12/2/22 8:43
Decachlorobiphenyl [2]	63.9	30-150		12/2/22 8:43
Tetrachloro-m-xylene [1]	62.8	30-150		12/2/22 8:43
Tetrachloro-m-xylene [2]	63.2	30-150		12/2/22 8:43

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Arsenic	3.4	0.80	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Chromium	4.1	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Copper	43	1.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	11/26/22	11/29/22 12:07	AAJ
Nickel	18	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Sodium	12	2.0	mg/L	1		SW-846 6010D	11/29/22	11/30/22 15:56	ATP
Thallium	ND	0.20	µg/L	1		SW-846 6020B	11/30/22	12/6/22 15:06	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	11/30/22	12/7/22 12:48	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: MW-101D | Sampled: 11/22/2022 13:40

Sample ID: 22K3399-11

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	12/3/22	12/3/22 14:00	DRA
Chloride	11	1.0	mg/L	1		EPA 300.0	12/2/22	12/3/22 0:07	EC

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Trip Blank | Sampled: 11/23/2022 08:30

Sample ID: 22K3399-12

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Chloroform	7.7	2.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22K3399

Date Received: 11/23/2022

Field Sample #: Trip Blank | Sampled: 11/23/2022 08:30

Sample ID: 22K3399-12

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Naphthalene	ND	2.0	0.24	µg/L	1	V-05	SW-846 8260D	11/29/22	11/29/22 12:38	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	11/29/22	11/29/22 12:38	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.5	70-130		11/29/22 12:38
Toluene-d8	97.3	70-130		11/29/22 12:38
4-Bromofluorobenzene	100	70-130		11/29/22 12:38

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Sample Extraction Data

Prep Method: EPA 300.0 **Analytical Method: EPA 300.0**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324625	10.0	10.0	12/02/22
22K3399-02 [BR-201]	B324625	10.0	10.0	12/02/22
22K3399-03 [BR-202]	B324625	10.0	10.0	12/02/22
22K3399-04 [MW-2]	B324625	10.0	10.0	12/02/22
22K3399-05 [Leibon Well]	B324625	10.0	10.0	12/02/22
22K3399-06 [BR-1]	B324625	10.0	10.0	12/02/22
22K3399-07 [BR-2]	B324625	10.0	10.0	12/02/22
22K3399-08 [BR-2FD]	B324625	10.0	10.0	12/02/22
22K3399-11 [MW-101D]	B324625	10.0	10.0	12/02/22

Prep Method: EPA 300.0 **Analytical Method: EPA 300.0**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-09 [PMCWS Well]	B324716	10.0	10.0	12/03/22
22K3399-10 [BR-3]	B324716	10.0	10.0	12/03/22

EPA 410.4

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324161	2.00	2.00	11/29/22
22K3399-02 [BR-201]	B324161	2.00	2.00	11/29/22
22K3399-03 [BR-202]	B324161	2.00	2.00	11/29/22
22K3399-04 [MW-2]	B324161	2.00	2.00	11/29/22
22K3399-05 [Leibon Well]	B324161	2.00	2.00	11/29/22
22K3399-06 [BR-1]	B324161	2.00	2.00	11/29/22
22K3399-07 [BR-2]	B324161	2.00	2.00	11/29/22
22K3399-08 [BR-2FD]	B324161	2.00	2.00	11/29/22
22K3399-09 [PMCWS Well]	B324161	2.00	2.00	11/29/22
22K3399-10 [BR-3]	B324161	2.00	2.00	11/29/22

EPA 410.4

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-11 [MW-101D]	B324708	2.00	2.00	12/03/22

Prep Method: SW-846 3005A **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324237	50.0	50.0	11/29/22
22K3399-02 [BR-201]	B324237	50.0	50.0	11/29/22
22K3399-03 [BR-202]	B324237	50.0	50.0	11/29/22
22K3399-04 [MW-2]	B324237	50.0	50.0	11/29/22
22K3399-05 [Leibon Well]	B324237	50.0	50.0	11/29/22
22K3399-06 [BR-1]	B324237	50.0	50.0	11/29/22
22K3399-07 [BR-2]	B324237	50.0	50.0	11/29/22
22K3399-08 [BR-2FD]	B324237	50.0	50.0	11/29/22
22K3399-09 [PMCWS Well]	B324237	50.0	50.0	11/29/22
22K3399-10 [BR-3]	B324237	50.0	50.0	11/29/22
22K3399-11 [MW-101D]	B324237	50.0	50.0	11/29/22

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Sample Extraction Data

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324392	50.0	50.0	11/30/22
22K3399-02 [BR-201]	B324392	50.0	50.0	11/30/22
22K3399-03 [BR-202]	B324392	50.0	50.0	11/30/22
22K3399-04 [MW-2]	B324392	50.0	50.0	11/30/22
22K3399-05 [Leibon Well]	B324392	50.0	50.0	11/30/22
22K3399-06 [BR-1]	B324392	50.0	50.0	11/30/22
22K3399-07 [BR-2]	B324392	50.0	50.0	11/30/22
22K3399-08 [BR-2FD]	B324392	50.0	50.0	11/30/22
22K3399-09 [PMCWS Well]	B324392	50.0	50.0	11/30/22
22K3399-10 [BR-3]	B324392	50.0	50.0	11/30/22
22K3399-11 [MW-101D]	B324392	50.0	50.0	11/30/22

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324027	10.0	10.0	11/26/22
22K3399-02 [BR-201]	B324027	10.0	10.0	11/26/22
22K3399-03 [BR-202]	B324027	10.0	10.0	11/26/22
22K3399-04 [MW-2]	B324027	10.0	10.0	11/26/22
22K3399-05 [Leibon Well]	B324027	10.0	10.0	11/26/22
22K3399-06 [BR-1]	B324027	10.0	10.0	11/26/22
22K3399-07 [BR-2]	B324027	10.0	10.0	11/26/22
22K3399-08 [BR-2FD]	B324027	10.0	10.0	11/26/22
22K3399-09 [PMCWS Well]	B324027	10.0	10.0	11/26/22
22K3399-10 [BR-3]	B324027	10.0	10.0	11/26/22
22K3399-11 [MW-101D]	B324027	10.0	10.0	11/26/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324035	990	10.0	11/28/22
22K3399-02 [BR-201]	B324035	960	10.0	11/28/22
22K3399-03 [BR-202]	B324035	980	10.0	11/28/22
22K3399-04 [MW-2]	B324035	970	10.0	11/28/22
22K3399-05 [Leibon Well]	B324035	1060	10.0	11/28/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-06 [BR-1]	B324181	1010	10.0	11/29/22
22K3399-07 [BR-2]	B324181	1000	10.0	11/29/22
22K3399-08 [BR-2FD]	B324181	975	10.0	11/29/22
22K3399-09 [PMCWS Well]	B324181	1020	10.0	11/29/22
22K3399-10 [BR-3]	B324181	960	10.0	11/29/22
22K3399-11 [MW-101D]	B324181	1010	10.0	11/29/22

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324177	5	5.00	11/29/22

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-02 [BR-201]	B324177	5	5.00	11/29/22
22K3399-03 [BR-202]	B324177	5	5.00	11/29/22
22K3399-04 [MW-2]	B324177	5	5.00	11/29/22
22K3399-05 [Leibon Well]	B324177	5	5.00	11/29/22
22K3399-06 [BR-1]	B324177	5	5.00	11/29/22
22K3399-07 [BR-2]	B324177	5	5.00	11/29/22
22K3399-08 [BR-2FD]	B324177	5	5.00	11/29/22
22K3399-09 [PMCWS Well]	B324177	5	5.00	11/29/22
22K3399-10 [BR-3]	B324177	5	5.00	11/29/22
22K3399-11 [MW-101D]	B324177	5	5.00	11/29/22
22K3399-12 [Trip Blank]	B324177	5	5.00	11/29/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324041	990	1.00	11/28/22
22K3399-02 [BR-201]	B324041	980	1.00	11/28/22
22K3399-03 [BR-202]	B324041	990	1.00	11/28/22
22K3399-04 [MW-2]	B324041	990	1.00	11/28/22
22K3399-05 [Leibon Well]	B324041	1040	1.00	11/28/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-01 [BR-4]	B324042	975	1.00	11/28/22
22K3399-02 [BR-201]	B324042	970	1.00	11/28/22
22K3399-03 [BR-202]	B324042	970	1.00	11/28/22
22K3399-04 [MW-2]	B324042	980	1.00	11/28/22
22K3399-05 [Leibon Well]	B324042	1030	1.00	11/28/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-06 [BR-1]	B324188	995	1.00	11/29/22
22K3399-07 [BR-2]	B324188	1000	1.00	11/29/22
22K3399-08 [BR-2FD]	B324188	990	1.00	11/29/22
22K3399-09 [PMCWS Well]	B324188	1000	1.00	11/29/22
22K3399-10 [BR-3]	B324188	1000	1.00	11/29/22
22K3399-11 [MW-101D]	B324188	995	1.00	11/29/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22K3399-06 [BR-1]	B324191	1020	1.00	11/29/22
22K3399-07 [BR-2]	B324191	1020	1.00	11/29/22
22K3399-08 [BR-2FD]	B324191	1020	1.00	11/29/22
22K3399-09 [PMCWS Well]	B324191	1000	1.00	11/29/22
22K3399-10 [BR-3]	B324191	1000	1.00	11/29/22
22K3399-11 [MW-101D]	B324191	970	1.00	11/29/22

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324177 - SW-846 5030B										
Blank (B324177-BLK1)				Prepared & Analyzed: 11/29/22						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							V-05
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							V-05
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324177 - SW-846 5030B										
Blank (B324177-BLK1)				Prepared & Analyzed: 11/29/22						
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	*23.6*		µg/L	25.0		94.4	70-130			
Surrogate: Toluene-d8	*24.1*		µg/L	25.0		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		100	70-130			
LCS (B324177-BS1)				Prepared & Analyzed: 11/29/22						
Acetone	87.1	50	µg/L	100		87.1	70-160			†
Acrylonitrile	8.28	5.0	µg/L	10.0		82.8	70-130			
tert-Amyl Methyl Ether (TAME)	8.60	0.50	µg/L	10.0		86.0	70-130			
Benzene	9.41	1.0	µg/L	10.0		94.1	70-130			
Bromobenzene	9.50	1.0	µg/L	10.0		95.0	70-130			
Bromochloromethane	11.5	1.0	µg/L	10.0		115	70-130			
Bromodichloromethane	9.61	0.50	µg/L	10.0		96.1	70-130			
Bromoform	9.46	1.0	µg/L	10.0		94.6	70-130			
Bromomethane	9.32	2.0	µg/L	10.0		93.2	40-160			†
2-Butanone (MEK)	85.6	20	µg/L	100		85.6	40-160			†
tert-Butyl Alcohol (TBA)	80.7	20	µg/L	100		80.7	40-160			†
n-Butylbenzene	8.12	1.0	µg/L	10.0		81.2	70-130			
sec-Butylbenzene	8.49	1.0	µg/L	10.0		84.9	70-130			
tert-Butylbenzene	9.03	1.0	µg/L	10.0		90.3	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.05	0.50	µg/L	10.0		90.5	70-130			
Carbon Disulfide	89.1	5.0	µg/L	100		89.1	70-130			
Carbon Tetrachloride	9.45	5.0	µg/L	10.0		94.5	70-130			
Chlorobenzene	10.9	1.0	µg/L	10.0		109	70-130			
Chlorodibromomethane	10.0	0.50	µg/L	10.0		100	70-130			
Chloroethane	9.47	2.0	µg/L	10.0		94.7	70-130			
Chloroform	9.41	2.0	µg/L	10.0		94.1	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B324177 - SW-846 5030B												
LCS (B324177-BS1)				Prepared & Analyzed: 11/29/22								
Chloromethane	8.37	2.0	µg/L	10.0		83.7		40-160				†
2-Chlorotoluene	10.0	1.0	µg/L	10.0		100		70-130				
4-Chlorotoluene	10.1	1.0	µg/L	10.0		101		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	6.48	5.0	µg/L	10.0		**64.8**	*	70-130			L-07, V-05	
1,2-Dibromoethane (EDB)	10.7	0.50	µg/L	10.0		107		70-130				
Dibromomethane	10.9	1.0	µg/L	10.0		109		70-130				
1,2-Dichlorobenzene	9.49	1.0	µg/L	10.0		94.9		70-130				
1,3-Dichlorobenzene	9.21	1.0	µg/L	10.0		92.1		70-130				
1,4-Dichlorobenzene	9.51	1.0	µg/L	10.0		95.1		70-130				
trans-1,4-Dichloro-2-butene	6.91	2.0	µg/L	10.0		**69.1**	*	70-130			L-07, V-05	
Dichlorodifluoromethane (Freon 12)	10.0	2.0	µg/L	10.0		100		40-160				†
1,1-Dichloroethane	10.1	1.0	µg/L	10.0		101		70-130				
1,2-Dichloroethane	10.6	1.0	µg/L	10.0		106		70-130				
1,1-Dichloroethylene	9.66	1.0	µg/L	10.0		96.6		70-130				
cis-1,2-Dichloroethylene	10.0	1.0	µg/L	10.0		100		70-130				
trans-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102		70-130				
1,2-Dichloropropane	10.5	1.0	µg/L	10.0		105		70-130				
1,3-Dichloropropane	10.5	0.50	µg/L	10.0		105		70-130				
2,2-Dichloropropane	8.10	1.0	µg/L	10.0		81.0		40-130				†
1,1-Dichloropropene	9.46	2.0	µg/L	10.0		94.6		70-130				
cis-1,3-Dichloropropene	9.29	0.50	µg/L	10.0		92.9		70-130				
trans-1,3-Dichloropropene	9.07	0.50	µg/L	10.0		90.7		70-130				
Diethyl Ether	9.27	2.0	µg/L	10.0		92.7		70-130				
Diisopropyl Ether (DIPE)	8.69	0.50	µg/L	10.0		86.9		70-130				
1,4-Dioxane	84.8	50	µg/L	100		84.8		40-130				†
Ethylbenzene	10.4	1.0	µg/L	10.0		104		70-130				
Hexachlorobutadiene	8.96	0.60	µg/L	10.0		89.6		70-130				
2-Hexanone (MBK)	87.9	10	µg/L	100		87.9		70-160				†
Isopropylbenzene (Cumene)	9.79	1.0	µg/L	10.0		97.9		70-130				
p-Isopropyltoluene (p-Cymene)	8.49	1.0	µg/L	10.0		84.9		70-130				
Methyl Acetate	9.17	1.0	µg/L	10.0		91.7		70-130				
Methyl tert-Butyl Ether (MTBE)	8.81	1.0	µg/L	10.0		88.1		70-130				
Methyl Cyclohexane	9.35	1.0	µg/L	10.0		93.5		70-130				
Methylene Chloride	9.22	5.0	µg/L	10.0		92.2		70-130				
4-Methyl-2-pentanone (MIBK)	90.4	10	µg/L	100		90.4		70-160				†
Naphthalene	6.45	2.0	µg/L	10.0		64.5		40-130			V-05	†
n-Propylbenzene	9.81	1.0	µg/L	10.0		98.1		70-130				
Styrene	9.96	1.0	µg/L	10.0		99.6		70-130				
1,1,1,2-Tetrachloroethane	10.1	1.0	µg/L	10.0		101		70-130				
1,1,2,2-Tetrachloroethane	9.67	0.50	µg/L	10.0		96.7		70-130				
Tetrachloroethylene	11.4	1.0	µg/L	10.0		114		70-130			V-20	
Tetrahydrofuran	7.63	10	µg/L	10.0		76.3		70-130			J	
Toluene	10.5	1.0	µg/L	10.0		105		70-130				
1,2,3-Trichlorobenzene	7.41	5.0	µg/L	10.0		74.1		70-130				
1,2,4-Trichlorobenzene	8.34	1.0	µg/L	10.0		83.4		70-130				
1,3,5-Trichlorobenzene	9.08	1.0	µg/L	10.0		90.8		70-130				
1,1,1-Trichloroethane	9.63	1.0	µg/L	10.0		96.3		70-130				
1,1,2-Trichloroethane	10.7	1.0	µg/L	10.0		107		70-130				
Trichloroethylene	11.0	1.0	µg/L	10.0		110		70-130				
Trichlorofluoromethane (Freon 11)	10.2	2.0	µg/L	10.0		102		70-130				
1,2,3-Trichloropropane	9.90	2.0	µg/L	10.0		99.0		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B324177 - SW-846 5030B											
LCS (B324177-BS1)				Prepared & Analyzed: 11/29/22							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.1	1.0	µg/L	10.0		101	70-130				
1,2,4-Trimethylbenzene	8.77	1.0	µg/L	10.0		87.7	70-130				
1,3,5-Trimethylbenzene	9.80	1.0	µg/L	10.0		98.0	70-130				
Vinyl Chloride	9.68	2.0	µg/L	10.0		96.8	40-160				†
m+p Xylene	20.7	2.0	µg/L	20.0		103	70-130				
o-Xylene	10.3	1.0	µg/L	10.0		103	70-130				
Surrogate: 1,2-Dichloroethane-d4	*22.6*		µg/L	25.0		90.3	70-130				
Surrogate: Toluene-d8	*24.8*		µg/L	25.0		99.3	70-130				
Surrogate: 4-Bromofluorobenzene	*25.0*		µg/L	25.0		100	70-130				
LCS Dup (B324177-BSD1)				Prepared & Analyzed: 11/29/22							
Acetone	93.1	50	µg/L	100		93.1	70-160	6.58	25		†
Acrylonitrile	8.60	5.0	µg/L	10.0		86.0	70-130	3.79	25		
tert-Amyl Methyl Ether (TAME)	8.80	0.50	µg/L	10.0		88.0	70-130	2.30	25		
Benzene	9.61	1.0	µg/L	10.0		96.1	70-130	2.10	25		
Bromobenzene	9.92	1.0	µg/L	10.0		99.2	70-130	4.33	25		
Bromochloromethane	11.8	1.0	µg/L	10.0		118	70-130	2.58	25		
Bromodichloromethane	9.92	0.50	µg/L	10.0		99.2	70-130	3.17	25		
Bromoform	9.82	1.0	µg/L	10.0		98.2	70-130	3.73	25		
Bromomethane	9.09	2.0	µg/L	10.0		90.9	40-160	2.50	25		†
2-Butanone (MEK)	91.4	20	µg/L	100		91.4	40-160	6.52	25		†
tert-Butyl Alcohol (TBA)	84.7	20	µg/L	100		84.7	40-160	4.90	25		†
n-Butylbenzene	9.13	1.0	µg/L	10.0		91.3	70-130	11.7	25		
sec-Butylbenzene	9.05	1.0	µg/L	10.0		90.5	70-130	6.39	25		
tert-Butylbenzene	9.27	1.0	µg/L	10.0		92.7	70-130	2.62	25		
tert-Butyl Ethyl Ether (TBEE)	9.26	0.50	µg/L	10.0		92.6	70-130	2.29	25		
Carbon Disulfide	93.3	5.0	µg/L	100		93.3	70-130	4.67	25		
Carbon Tetrachloride	9.18	5.0	µg/L	10.0		91.8	70-130	2.90	25		
Chlorobenzene	11.2	1.0	µg/L	10.0		112	70-130	3.35	25		
Chlorodibromomethane	10.0	0.50	µg/L	10.0		100	70-130	0.300	25		
Chloroethane	9.82	2.0	µg/L	10.0		98.2	70-130	3.63	25		
Chloroform	9.63	2.0	µg/L	10.0		96.3	70-130	2.31	25		
Chloromethane	8.47	2.0	µg/L	10.0		84.7	40-160	1.19	25		†
2-Chlorotoluene	10.7	1.0	µg/L	10.0		107	70-130	6.75	25		
4-Chlorotoluene	10.9	1.0	µg/L	10.0		109	70-130	6.86	25		
1,2-Dibromo-3-chloropropane (DBCP)	7.13	5.0	µg/L	10.0		71.3	70-130	9.55	25	V-05	
1,2-Dibromoethane (EDB)	11.0	0.50	µg/L	10.0		110	70-130	2.76	25		
Dibromomethane	11.5	1.0	µg/L	10.0		115	70-130	5.89	25		
1,2-Dichlorobenzene	9.83	1.0	µg/L	10.0		98.3	70-130	3.52	25		
1,3-Dichlorobenzene	9.59	1.0	µg/L	10.0		95.9	70-130	4.04	25		
1,4-Dichlorobenzene	9.88	1.0	µg/L	10.0		98.8	70-130	3.82	25		
trans-1,4-Dichloro-2-butene	7.32	2.0	µg/L	10.0		73.2	70-130	5.76	25	V-05	
Dichlorodifluoromethane (Freon 12)	10.8	2.0	µg/L	10.0		108	40-160	7.38	25		†
1,1-Dichloroethane	10.0	1.0	µg/L	10.0		100	70-130	0.598	25		
1,2-Dichloroethane	10.5	1.0	µg/L	10.0		105	70-130	1.14	25		
1,1-Dichloroethylene	10.0	1.0	µg/L	10.0		100	70-130	3.96	25		
cis-1,2-Dichloroethylene	10.3	1.0	µg/L	10.0		103	70-130	2.66	25		
trans-1,2-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130	1.36	25		
1,2-Dichloropropane	10.8	1.0	µg/L	10.0		108	70-130	3.29	25		
1,3-Dichloropropane	11.0	0.50	µg/L	10.0		110	70-130	4.65	25		
2,2-Dichloropropane	8.94	1.0	µg/L	10.0		89.4	40-130	9.86	25		†
1,1-Dichloropropene	9.60	2.0	µg/L	10.0		96.0	70-130	1.47	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B324177 - SW-846 5030B											
LCS Dup (B324177-BSD1)				Prepared & Analyzed: 11/29/22							
cis-1,3-Dichloropropene	9.60	0.50	µg/L	10.0		96.0	70-130	3.28	25		
trans-1,3-Dichloropropene	9.55	0.50	µg/L	10.0		95.5	70-130	5.16	25		
Diethyl Ether	9.36	2.0	µg/L	10.0		93.6	70-130	0.966	25		
Diisopropyl Ether (DIPE)	8.76	0.50	µg/L	10.0		87.6	70-130	0.802	25		
1,4-Dioxane	87.2	50	µg/L	100		87.2	40-130	2.80	50		† ‡
Ethylbenzene	10.8	1.0	µg/L	10.0		108	70-130	3.67	25		
Hexachlorobutadiene	9.69	0.60	µg/L	10.0		96.9	70-130	7.83	25		
2-Hexanone (MBK)	95.2	10	µg/L	100		95.2	70-160	7.96	25		†
Isopropylbenzene (Cumene)	10.3	1.0	µg/L	10.0		103	70-130	5.17	25		
p-Isopropyltoluene (p-Cymene)	9.18	1.0	µg/L	10.0		91.8	70-130	7.81	25		
Methyl Acetate	9.18	1.0	µg/L	10.0		91.8	70-130	0.109	25		
Methyl tert-Butyl Ether (MTBE)	9.17	1.0	µg/L	10.0		91.7	70-130	4.00	25		
Methyl Cyclohexane	10.8	1.0	µg/L	10.0		108	70-130	14.6	25		
Methylene Chloride	9.39	5.0	µg/L	10.0		93.9	70-130	1.83	25		
4-Methyl-2-pentanone (MIBK)	96.0	10	µg/L	100		96.0	70-160	5.98	25		†
Naphthalene	6.98	2.0	µg/L	10.0		69.8	40-130	7.89	25	V-05	†
n-Propylbenzene	10.5	1.0	µg/L	10.0		105	70-130	6.70	25		
Styrene	10.5	1.0	µg/L	10.0		105	70-130	5.09	25		
1,1,1,2-Tetrachloroethane	10.6	1.0	µg/L	10.0		106	70-130	5.02	25		
1,1,2,2-Tetrachloroethane	10.4	0.50	µg/L	10.0		104	70-130	7.08	25		
Tetrachloroethylene	12.2	1.0	µg/L	10.0		122	70-130	6.52	25	V-20	
Tetrahydrofuran	8.12	10	µg/L	10.0		81.2	70-130	6.22	25	J	
Toluene	10.9	1.0	µg/L	10.0		109	70-130	3.83	25		
1,2,3-Trichlorobenzene	8.09	5.0	µg/L	10.0		80.9	70-130	8.77	25		
1,2,4-Trichlorobenzene	9.27	1.0	µg/L	10.0		92.7	70-130	10.6	25		
1,3,5-Trichlorobenzene	9.77	1.0	µg/L	10.0		97.7	70-130	7.32	25		
1,1,1-Trichloroethane	9.68	1.0	µg/L	10.0		96.8	70-130	0.518	25		
1,1,2-Trichloroethane	11.2	1.0	µg/L	10.0		112	70-130	5.29	25		
Trichloroethylene	11.4	1.0	µg/L	10.0		114	70-130	3.93	25		
Trichlorofluoromethane (Freon 11)	10.2	2.0	µg/L	10.0		102	70-130	0.785	25		
1,2,3-Trichloropropane	10.7	2.0	µg/L	10.0		107	70-130	8.14	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.6	1.0	µg/L	10.0		106	70-130	4.82	25		
1,2,4-Trimethylbenzene	9.18	1.0	µg/L	10.0		91.8	70-130	4.57	25		
1,3,5-Trimethylbenzene	10.5	1.0	µg/L	10.0		105	70-130	6.52	25		
Vinyl Chloride	10.1	2.0	µg/L	10.0		101	40-160	4.44	25		†
m+p Xylene	21.8	2.0	µg/L	20.0		109	70-130	5.09	25		
o-Xylene	10.6	1.0	µg/L	10.0		106	70-130	2.88	25		
Surrogate: 1,2-Dichloroethane-d4	*22.6*		µg/L	25.0		90.4	70-130				
Surrogate: Toluene-d8	*24.6*		µg/L	25.0		98.6	70-130				
Surrogate: 4-Bromofluorobenzene	*25.2*		µg/L	25.0		101	70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324041 - SW-846 3510C										
Blank (B324041-BLK1)				Prepared: 11/28/22 Analyzed: 12/01/22						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							V-05
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							V-04, V-05
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324041 - SW-846 3510C										
Blank (B324041-BLK1)				Prepared: 11/28/22 Analyzed: 12/01/22						
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*97.8*		µg/L	200		48.9	15-110			
Surrogate: Phenol-d6	*68.5*		µg/L	200		34.2	15-110			
Surrogate: Nitrobenzene-d5	*69.1*		µg/L	100		69.1	30-130			
Surrogate: 2-Fluorobiphenyl	*68.8*		µg/L	100		68.8	30-130			
Surrogate: 2,4,6-Tribromophenol	*135*		µg/L	200		67.6	15-110			
Surrogate: p-Terphenyl-d14	*88.2*		µg/L	100		88.2	30-130			
LCS (B324041-BS1)				Prepared: 11/28/22 Analyzed: 12/01/22						
Acenaphthene	35.2	5.0	µg/L	50.0		70.3	40-140			
Acenaphthylene	35.2	5.0	µg/L	50.0		70.5	40-140			
Acetophenone	37.1	10	µg/L	50.0		74.2	40-140			
Aniline	37.6	5.0	µg/L	50.0		75.2	40-140			V-05
Anthracene	38.1	5.0	µg/L	50.0		76.2	40-140			
Benzidine	48.8	20	µg/L	50.0		97.7	40-140			V-04, V-05
Benzo(a)anthracene	37.2	5.0	µg/L	50.0		74.3	40-140			
Benzo(a)pyrene	35.7	5.0	µg/L	50.0		71.4	40-140			
Benzo(b)fluoranthene	39.0	5.0	µg/L	50.0		78.0	40-140			
Benzo(g,h,i)perylene	29.4	5.0	µg/L	50.0		58.8	40-140			
Benzo(k)fluoranthene	41.5	5.0	µg/L	50.0		82.9	40-140			
Benzoic Acid	18.0	10	µg/L	50.0		36.0	10-130			†
Bis(2-chloroethoxy)methane	38.9	10	µg/L	50.0		77.9	40-140			
Bis(2-chloroethyl)ether	39.9	10	µg/L	50.0		79.7	40-140			
Bis(2-chloroisopropyl)ether	45.7	10	µg/L	50.0		91.4	40-140			
Bis(2-Ethylhexyl)phthalate	45.0	10	µg/L	50.0		90.0	40-140			
4-Bromophenylphenylether	35.2	10	µg/L	50.0		70.4	40-140			
Butylbenzylphthalate	44.0	10	µg/L	50.0		88.1	40-140			
Carbazole	37.6	10	µg/L	50.0		75.2	40-140			
4-Chloroaniline	38.6	10	µg/L	50.0		77.2	40-140			
4-Chloro-3-methylphenol	36.2	10	µg/L	50.0		72.3	30-130			
2-Chloronaphthalene	30.7	10	µg/L	50.0		61.3	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324041 - SW-846 3510C										
LCS (B324041-BS1)				Prepared: 11/28/22 Analyzed: 12/01/22						
2-Chlorophenol	33.9	10	µg/L	50.0		67.8	30-130			
4-Chlorophenylphenylether	33.3	10	µg/L	50.0		66.6	40-140			
Chrysene	37.3	5.0	µg/L	50.0		74.6	40-140			
Dibenz(a,h)anthracene	28.8	5.0	µg/L	50.0		57.7	40-140			
Dibenzofuran	34.9	5.0	µg/L	50.0		69.8	40-140			
Di-n-butylphthalate	40.6	10	µg/L	50.0		81.2	40-140			
1,2-Dichlorobenzene	28.9	5.0	µg/L	50.0		57.9	40-140			
1,3-Dichlorobenzene	27.4	5.0	µg/L	50.0		54.9	40-140			
1,4-Dichlorobenzene	28.1	5.0	µg/L	50.0		56.1	40-140			
3,3-Dichlorobenzidine	42.8	10	µg/L	50.0		85.7	40-140			
2,4-Dichlorophenol	34.3	10	µg/L	50.0		68.5	30-130			
Diethylphthalate	36.9	10	µg/L	50.0		73.7	40-140			
2,4-Dimethylphenol	37.4	10	µg/L	50.0		74.8	30-130			
Dimethylphthalate	36.0	10	µg/L	50.0		72.0	40-140			
4,6-Dinitro-2-methylphenol	34.4	10	µg/L	50.0		68.7	30-130			
2,4-Dinitrophenol	27.7	10	µg/L	50.0		55.5	30-130			
2,4-Dinitrotoluene	33.4	10	µg/L	50.0		66.7	40-140			
2,6-Dinitrotoluene	36.0	10	µg/L	50.0		72.1	40-140			
Di-n-octylphthalate	44.0	10	µg/L	50.0		88.0	40-140			
1,2-Diphenylhydrazine/Azobenzene	46.5	10	µg/L	50.0		93.0	40-140			
Fluoranthene	35.2	5.0	µg/L	50.0		70.4	40-140			
Fluorene	35.8	5.0	µg/L	50.0		71.7	40-140			
Hexachlorobenzene	34.4	10	µg/L	50.0		68.9	40-140			
Hexachlorobutadiene	25.3	10	µg/L	50.0		50.7	40-140			
Hexachlorocyclopentadiene	29.3	10	µg/L	50.0		58.6	30-140			†
Hexachloroethane	28.8	10	µg/L	50.0		57.6	40-140			
Indeno(1,2,3-cd)pyrene	30.7	5.0	µg/L	50.0		61.3	40-140			
Isophorone	42.7	10	µg/L	50.0		85.4	40-140			
1-Methylnaphthalene	32.0	5.0	µg/L	50.0		64.0	40-140			
2-Methylnaphthalene	31.6	5.0	µg/L	50.0		63.2	40-140			
2-Methylphenol	33.9	10	µg/L	50.0		67.8	30-130			
3/4-Methylphenol	33.7	10	µg/L	50.0		67.3	30-130			
Naphthalene	33.1	5.0	µg/L	50.0		66.2	40-140			
2-Nitroaniline	48.7	10	µg/L	50.0		97.4	40-140			
3-Nitroaniline	37.1	10	µg/L	50.0		74.1	40-140			
4-Nitroaniline	36.3	10	µg/L	50.0		72.7	40-140			
Nitrobenzene	37.4	10	µg/L	50.0		74.9	40-140			
2-Nitrophenol	33.4	10	µg/L	50.0		66.9	30-130			
4-Nitrophenol	20.7	10	µg/L	50.0		41.5	10-130			†
N-Nitrosodimethylamine	27.1	10	µg/L	50.0		54.1	40-140			
N-Nitrosodiphenylamine/Diphenylamine	40.1	10	µg/L	50.0		80.1	40-140			
N-Nitrosodi-n-propylamine	40.4	10	µg/L	50.0		80.8	40-140			
Pentachloronitrobenzene	34.4	10	µg/L	50.0		68.8	40-140			
Pentachlorophenol	30.1	10	µg/L	50.0		60.1	30-130			
Phenanthrene	37.7	5.0	µg/L	50.0		75.4	40-140			
Phenol	18.5	10	µg/L	50.0		37.0	20-130			†
Pyrene	39.0	5.0	µg/L	50.0		77.9	40-140			
Pyridine	20.1	5.0	µg/L	50.0		40.2	10-140			†
1,2,4,5-Tetrachlorobenzene	31.8	10	µg/L	50.0		63.6	40-140			
1,2,4-Trichlorobenzene	28.3	5.0	µg/L	50.0		56.7	40-140			
2,4,5-Trichlorophenol	35.4	10	µg/L	50.0		70.9	30-130			
2,4,6-Trichlorophenol	34.5	10	µg/L	50.0		69.0	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B324041 - SW-846 3510C											
LCS (B324041-BS1)				Prepared: 11/28/22 Analyzed: 12/01/22							
Surrogate: 2-Fluorophenol	*110*		µg/L	200		55.0	15-110				
Surrogate: Phenol-d6	*78.4*		µg/L	200		39.2	15-110				
Surrogate: Nitrobenzene-d5	*77.9*		µg/L	100		77.9	30-130				
Surrogate: 2-Fluorobiphenyl	*81.1*		µg/L	100		81.1	30-130				
Surrogate: 2,4,6-Tribromophenol	*159*		µg/L	200		79.5	15-110				
Surrogate: p-Terphenyl-d14	*86.8*		µg/L	100		86.8	30-130				
LCS Dup (B324041-BSD1)				Prepared: 11/28/22 Analyzed: 12/01/22							
Acenaphthene	35.4	5.0	µg/L	50.0		70.8	40-140	0.708	20		
Acenaphthylene	35.3	5.0	µg/L	50.0		70.6	40-140	0.227	20		
Acetophenone	37.6	10	µg/L	50.0		75.1	40-140	1.26	20		
Aniline	38.7	5.0	µg/L	50.0		77.4	40-140	2.81	50	V-05	‡
Anthracene	39.1	5.0	µg/L	50.0		78.1	40-140	2.51	20		
Benzidine	52.8	20	µg/L	50.0		106	40-140	7.81	20	V-04, V-05	
Benzo(a)anthracene	37.7	5.0	µg/L	50.0		75.4	40-140	1.36	20		
Benzo(a)pyrene	36.4	5.0	µg/L	50.0		72.8	40-140	1.89	20		
Benzo(b)fluoranthene	39.7	5.0	µg/L	50.0		79.5	40-140	1.83	20		
Benzo(g,h,i)perylene	30.4	5.0	µg/L	50.0		60.8	40-140	3.44	20		
Benzo(k)fluoranthene	41.8	5.0	µg/L	50.0		83.7	40-140	0.912	20		
Benzoic Acid	16.7	10	µg/L	50.0		33.4	10-130	7.26	50		† ‡
Bis(2-chloroethoxy)methane	40.0	10	µg/L	50.0		80.0	40-140	2.76	20		
Bis(2-chloroethyl)ether	40.7	10	µg/L	50.0		81.4	40-140	2.13	20		
Bis(2-chloroisopropyl)ether	46.7	10	µg/L	50.0		93.3	40-140	2.04	20		
Bis(2-Ethylhexyl)phthalate	46.1	10	µg/L	50.0		92.2	40-140	2.46	20		
4-Bromophenylphenylether	35.2	10	µg/L	50.0		70.4	40-140	0.00	20		
Butylbenzylphthalate	44.2	10	µg/L	50.0		88.5	40-140	0.476	20		
Carbazole	38.0	10	µg/L	50.0		75.9	40-140	0.926	20		
4-Chloroaniline	36.9	10	µg/L	50.0		73.9	40-140	4.42	20		
4-Chloro-3-methylphenol	37.6	10	µg/L	50.0		75.2	30-130	3.90	20		
2-Chloronaphthalene	31.0	10	µg/L	50.0		61.9	40-140	0.973	20		
2-Chlorophenol	34.5	10	µg/L	50.0		69.0	30-130	1.78	20		
4-Chlorophenylphenylether	34.3	10	µg/L	50.0		68.5	40-140	2.87	20		
Chrysene	37.8	5.0	µg/L	50.0		75.6	40-140	1.33	20		
Dibenz(a,h)anthracene	29.8	5.0	µg/L	50.0		59.6	40-140	3.31	20		
Dibenzofuran	35.2	5.0	µg/L	50.0		70.4	40-140	0.942	20		
Di-n-butylphthalate	41.8	10	µg/L	50.0		83.6	40-140	2.89	20		
1,2-Dichlorobenzene	29.2	5.0	µg/L	50.0		58.4	40-140	0.963	20		
1,3-Dichlorobenzene	27.8	5.0	µg/L	50.0		55.7	40-140	1.45	20		
1,4-Dichlorobenzene	28.4	5.0	µg/L	50.0		56.7	40-140	1.03	20		
3,3-Dichlorobenzidine	43.6	10	µg/L	50.0		87.2	40-140	1.74	20		
2,4-Dichlorophenol	34.2	10	µg/L	50.0		68.4	30-130	0.263	20		
Diethylphthalate	37.9	10	µg/L	50.0		75.8	40-140	2.81	20		
2,4-Dimethylphenol	38.0	10	µg/L	50.0		76.0	30-130	1.57	20		
Dimethylphthalate	37.4	10	µg/L	50.0		74.7	40-140	3.71	50		‡
4,6-Dinitro-2-methylphenol	35.7	10	µg/L	50.0		71.4	30-130	3.77	50		‡
2,4-Dinitrophenol	29.2	10	µg/L	50.0		58.4	30-130	5.16	50		‡
2,4-Dinitrotoluene	34.8	10	µg/L	50.0		69.7	40-140	4.34	20		
2,6-Dinitrotoluene	37.7	10	µg/L	50.0		75.5	40-140	4.58	20		
Di-n-octylphthalate	45.0	10	µg/L	50.0		90.0	40-140	2.20	20		
1,2-Diphenylhydrazine/Azobenzene	48.4	10	µg/L	50.0		96.9	40-140	4.11	20		
Fluoranthene	36.2	5.0	µg/L	50.0		72.4	40-140	2.83	20		
Fluorene	36.3	5.0	µg/L	50.0		72.6	40-140	1.27	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324041 - SW-846 3510C										
LCS Dup (B324041-BSD1)				Prepared: 11/28/22 Analyzed: 12/01/22						
Hexachlorobenzene	35.4	10	µg/L	50.0		70.9	40-140	2.80	20	
Hexachlorobutadiene	25.2	10	µg/L	50.0		50.3	40-140	0.673	20	
Hexachlorocyclopentadiene	29.2	10	µg/L	50.0		58.3	30-140	0.479	50	† ‡
Hexachloroethane	28.8	10	µg/L	50.0		57.6	40-140	0.0694	50	‡
Indeno(1,2,3-cd)pyrene	31.9	5.0	µg/L	50.0		63.9	40-140	4.09	50	‡
Isophorone	43.4	10	µg/L	50.0		86.7	40-140	1.56	20	
1-Methylnaphthalene	32.4	5.0	µg/L	50.0		64.8	40-140	1.34	20	
2-Methylnaphthalene	31.8	5.0	µg/L	50.0		63.7	40-140	0.820	20	
2-Methylphenol	34.6	10	µg/L	50.0		69.1	30-130	1.87	20	
3/4-Methylphenol	34.6	10	µg/L	50.0		69.2	30-130	2.81	20	
Naphthalene	32.4	5.0	µg/L	50.0		64.8	40-140	2.17	20	
2-Nitroaniline	48.9	10	µg/L	50.0		97.8	40-140	0.410	20	
3-Nitroaniline	36.4	10	µg/L	50.0		72.8	40-140	1.77	20	
4-Nitroaniline	36.3	10	µg/L	50.0		72.6	40-140	0.165	20	
Nitrobenzene	36.6	10	µg/L	50.0		73.2	40-140	2.24	20	
2-Nitrophenol	32.8	10	µg/L	50.0		65.7	30-130	1.81	20	
4-Nitrophenol	20.2	10	µg/L	50.0		40.4	10-130	2.59	50	† ‡
N-Nitrosodimethylamine	26.4	10	µg/L	50.0		52.8	40-140	2.43	20	
N-Nitrosodiphenylamine/Diphenylamine	41.0	10	µg/L	50.0		81.9	40-140	2.25	20	
N-Nitrosodi-n-propylamine	42.0	10	µg/L	50.0		84.0	40-140	3.91	20	
Pentachloronitrobenzene	35.2	10	µg/L	50.0		70.3	40-140	2.10	20	
Pentachlorophenol	30.6	10	µg/L	50.0		61.2	30-130	1.85	50	‡
Phenanthrene	38.7	5.0	µg/L	50.0		77.3	40-140	2.51	20	
Phenol	18.5	10	µg/L	50.0		36.9	20-130	0.325	20	†
Pyrene	39.8	5.0	µg/L	50.0		79.7	40-140	2.23	20	
Pyridine	22.4	5.0	µg/L	50.0		44.8	10-140	10.7	50	† ‡
1,2,4,5-Tetrachlorobenzene	31.2	10	µg/L	50.0		62.5	40-140	1.87	20	
1,2,4-Trichlorobenzene	27.6	5.0	µg/L	50.0		55.1	40-140	2.76	20	
2,4,5-Trichlorophenol	36.6	10	µg/L	50.0		73.2	30-130	3.25	20	
2,4,6-Trichlorophenol	34.7	10	µg/L	50.0		69.3	30-130	0.492	50	‡
Surrogate: 2-Fluorophenol	*107*		µg/L	200		53.4	15-110			
Surrogate: Phenol-d6	*77.0*		µg/L	200		38.5	15-110			
Surrogate: Nitrobenzene-d5	*76.1*		µg/L	100		76.1	30-130			
Surrogate: 2-Fluorobiphenyl	*79.0*		µg/L	100		79.0	30-130			
Surrogate: 2,4,6-Tribromophenol	*160*		µg/L	200		79.9	15-110			
Surrogate: p-Terphenyl-d14	*86.9*		µg/L	100		86.9	30-130			
Batch B324188 - SW-846 3510C										
Blank (B324188-BLK1)				Prepared: 11/29/22 Analyzed: 12/01/22						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							V-05
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							V-04, V-05
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324188 - SW-846 3510C										
Blank (B324188-BLK1)				Prepared: 11/29/22 Analyzed: 12/01/22						
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324188 - SW-846 3510C										
Blank (B324188-BLK1)				Prepared: 11/29/22 Analyzed: 12/01/22						
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*93.2*		µg/L	200		46.6	15-110			
Surrogate: Phenol-d6	*66.4*		µg/L	200		33.2	15-110			
Surrogate: Nitrobenzene-d5	*65.3*		µg/L	100		65.3	30-130			
Surrogate: 2-Fluorobiphenyl	*66.5*		µg/L	100		66.5	30-130			
Surrogate: 2,4,6-Tribromophenol	*125*		µg/L	200		62.7	15-110			
Surrogate: p-Terphenyl-d14	*80.8*		µg/L	100		80.8	30-130			
LCS (B324188-BS1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Acenaphthene	33.6	5.0	µg/L	50.0		67.1	40-140			
Acenaphthylene	33.4	5.0	µg/L	50.0		66.7	40-140			
Acetophenone	31.1	10	µg/L	50.0		62.3	40-140			
Aniline	27.6	5.0	µg/L	50.0		55.2	40-140			V-05
Anthracene	35.0	5.0	µg/L	50.0		69.9	40-140			
Benzidine	55.8	20	µg/L	50.0		112	40-140			V-04, V-05
Benzo(a)anthracene	34.1	5.0	µg/L	50.0		68.1	40-140			
Benzo(a)pyrene	32.5	5.0	µg/L	50.0		65.0	40-140			
Benzo(b)fluoranthene	34.6	5.0	µg/L	50.0		69.3	40-140			
Benzo(g,h,i)perylene	34.2	5.0	µg/L	50.0		68.5	40-140			
Benzo(k)fluoranthene	37.0	5.0	µg/L	50.0		74.1	40-140			
Benzoic Acid	12.6	10	µg/L	50.0		25.2	10-130			†
Bis(2-chloroethoxy)methane	32.7	10	µg/L	50.0		65.3	40-140			
Bis(2-chloroethyl)ether	29.4	10	µg/L	50.0		58.7	40-140			
Bis(2-chloroisopropyl)ether	31.6	10	µg/L	50.0		63.3	40-140			
Bis(2-Ethylhexyl)phthalate	36.8	10	µg/L	50.0		73.6	40-140			
4-Bromophenylphenylether	37.1	10	µg/L	50.0		74.3	40-140			
Butylbenzylphthalate	34.7	10	µg/L	50.0		69.5	40-140			
Carbazole	35.5	10	µg/L	50.0		71.1	40-140			
4-Chloroaniline	34.0	10	µg/L	50.0		68.1	40-140			
4-Chloro-3-methylphenol	33.1	10	µg/L	50.0		66.2	30-130			
2-Chloronaphthalene	29.9	10	µg/L	50.0		59.9	40-140			
2-Chlorophenol	29.6	10	µg/L	50.0		59.2	30-130			
4-Chlorophenylphenylether	35.4	10	µg/L	50.0		70.8	40-140			
Chrysene	34.8	5.0	µg/L	50.0		69.5	40-140			
Dibenz(a,h)anthracene	34.4	5.0	µg/L	50.0		68.8	40-140			
Dibenzofuran	34.6	5.0	µg/L	50.0		69.3	40-140			
Di-n-butylphthalate	37.0	10	µg/L	50.0		74.0	40-140			
1,2-Dichlorobenzene	26.9	5.0	µg/L	50.0		53.8	40-140			
1,3-Dichlorobenzene	26.2	5.0	µg/L	50.0		52.3	40-140			
1,4-Dichlorobenzene	25.4	5.0	µg/L	50.0		50.9	40-140			
3,3-Dichlorobenzidine	44.8	10	µg/L	50.0		89.7	40-140			
2,4-Dichlorophenol	33.7	10	µg/L	50.0		67.5	30-130			
Diethylphthalate	34.8	10	µg/L	50.0		69.6	40-140			
2,4-Dimethylphenol	34.3	10	µg/L	50.0		68.6	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324188 - SW-846 3510C										
LCS (B324188-BS1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Dimethylphthalate	35.7	10	µg/L	50.0		71.4	40-140			
4,6-Dinitro-2-methylphenol	33.4	10	µg/L	50.0		66.9	30-130			
2,4-Dinitrophenol	30.9	10	µg/L	50.0		61.7	30-130			
2,4-Dinitrotoluene	37.5	10	µg/L	50.0		75.0	40-140			
2,6-Dinitrotoluene	36.0	10	µg/L	50.0		72.1	40-140			
Di-n-octylphthalate	35.2	10	µg/L	50.0		70.4	40-140			
1,2-Diphenylhydrazine/Azobenzene	31.9	10	µg/L	50.0		63.8	40-140			
Fluoranthene	36.3	5.0	µg/L	50.0		72.6	40-140			
Fluorene	34.2	5.0	µg/L	50.0		68.4	40-140			
Hexachlorobenzene	37.7	10	µg/L	50.0		75.5	40-140			
Hexachlorobutadiene	28.3	10	µg/L	50.0		56.6	40-140			
Hexachlorocyclopentadiene	25.4	10	µg/L	50.0		50.8	30-140			†
Hexachloroethane	24.6	10	µg/L	50.0		49.3	40-140			
Indeno(1,2,3-cd)pyrene	35.2	5.0	µg/L	50.0		70.4	40-140			
Isophorone	35.2	10	µg/L	50.0		70.3	40-140			
1-Methylnaphthalene	32.4	5.0	µg/L	50.0		64.9	40-140			
2-Methylnaphthalene	31.3	5.0	µg/L	50.0		62.7	40-140			
2-Methylphenol	29.9	10	µg/L	50.0		59.7	30-130			
3/4-Methylphenol	29.4	10	µg/L	50.0		58.9	30-130			
Naphthalene	30.7	5.0	µg/L	50.0		61.4	40-140			
2-Nitroaniline	29.8	10	µg/L	50.0		59.7	40-140			
3-Nitroaniline	34.7	10	µg/L	50.0		69.4	40-140			
4-Nitroaniline	34.4	10	µg/L	50.0		68.7	40-140			
Nitrobenzene	29.4	10	µg/L	50.0		58.7	40-140			
2-Nitrophenol	32.4	10	µg/L	50.0		64.8	30-130			
4-Nitrophenol	22.2	10	µg/L	50.0		44.3	10-130			†
N-Nitrosodimethylamine	20.2	10	µg/L	50.0		40.4	40-140			
N-Nitrosodiphenylamine/Diphenylamine	36.1	10	µg/L	50.0		72.1	40-140			
N-Nitrosodi-n-propylamine	31.6	10	µg/L	50.0		63.1	40-140			
Pentachloronitrobenzene	40.9	10	µg/L	50.0		81.9	40-140			
Pentachlorophenol	29.5	10	µg/L	50.0		59.0	30-130			
Phenanthrene	34.8	5.0	µg/L	50.0		69.6	40-140			
Phenol	17.4	10	µg/L	50.0		34.8	20-130			†
Pyrene	33.1	5.0	µg/L	50.0		66.2	40-140			
Pyridine	18.3	5.0	µg/L	50.0		36.5	10-140			†
1,2,4,5-Tetrachlorobenzene	33.9	10	µg/L	50.0		67.7	40-140			
1,2,4-Trichlorobenzene	29.4	5.0	µg/L	50.0		58.8	40-140			
2,4,5-Trichlorophenol	35.6	10	µg/L	50.0		71.2	30-130			
2,4,6-Trichlorophenol	34.7	10	µg/L	50.0		69.5	30-130			
Surrogate: 2-Fluorophenol	*85.4*		µg/L	200		42.7	15-110			
Surrogate: Phenol-d6	*62.6*		µg/L	200		31.3	15-110			
Surrogate: Nitrobenzene-d5	*64.4*		µg/L	100		64.4	30-130			
Surrogate: 2-Fluorobiphenyl	*72.2*		µg/L	100		72.2	30-130			
Surrogate: 2,4,6-Tribromophenol	*162*		µg/L	200		81.2	15-110			
Surrogate: p-Terphenyl-d14	*77.8*		µg/L	100		77.8	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B324188 - SW-846 3510C											
LCS Dup (B324188-BSD1)				Prepared: 11/29/22 Analyzed: 11/30/22							
Acenaphthene	34.4	5.0	µg/L	50.0		68.7	40-140	2.36	20		
Acenaphthylene	33.8	5.0	µg/L	50.0		67.5	40-140	1.19	20		
Acetophenone	32.9	10	µg/L	50.0		65.8	40-140	5.53	20		
Aniline	29.6	5.0	µg/L	50.0		59.3	40-140	7.16	50	V-05	‡
Anthracene	36.7	5.0	µg/L	50.0		73.4	40-140	4.80	20		
Benzidine	48.4	20	µg/L	50.0		96.9	40-140	14.2	20	V-04, V-05	
Benzo(a)anthracene	35.4	5.0	µg/L	50.0		70.9	40-140	3.97	20		
Benzo(a)pyrene	34.1	5.0	µg/L	50.0		68.1	40-140	4.72	20		
Benzo(b)fluoranthene	36.6	5.0	µg/L	50.0		73.2	40-140	5.50	20		
Benzo(g,h,i)perylene	35.4	5.0	µg/L	50.0		70.9	40-140	3.39	20		
Benzo(k)fluoranthene	38.6	5.0	µg/L	50.0		77.1	40-140	4.05	20		
Benzoic Acid	15.1	10	µg/L	50.0		30.2	10-130	17.9	50		† ‡
Bis(2-chloroethoxy)methane	34.0	10	µg/L	50.0		67.9	40-140	3.90	20		
Bis(2-chloroethyl)ether	35.0	10	µg/L	50.0		70.0	40-140	17.5	20		
Bis(2-chloroisopropyl)ether	33.1	10	µg/L	50.0		66.3	40-140	4.63	20		
Bis(2-Ethylhexyl)phthalate	35.9	10	µg/L	50.0		71.8	40-140	2.59	20		
4-Bromophenylphenylether	36.5	10	µg/L	50.0		73.0	40-140	1.68	20		
Butylbenzylphthalate	34.2	10	µg/L	50.0		68.5	40-140	1.42	20		
Carbazole	36.2	10	µg/L	50.0		72.3	40-140	1.76	20		
4-Chloroaniline	34.6	10	µg/L	50.0		69.2	40-140	1.60	20		
4-Chloro-3-methylphenol	35.1	10	µg/L	50.0		70.2	30-130	5.78	20		
2-Chloronaphthalene	27.7	10	µg/L	50.0		55.5	40-140	7.59	20		
2-Chlorophenol	32.3	10	µg/L	50.0		64.6	30-130	8.72	20		
4-Chlorophenylphenylether	35.8	10	µg/L	50.0		71.5	40-140	0.956	20		
Chrysene	35.4	5.0	µg/L	50.0		70.7	40-140	1.74	20		
Dibenz(a,h)anthracene	37.3	5.0	µg/L	50.0		74.6	40-140	8.03	20		
Dibenzofuran	35.0	5.0	µg/L	50.0		70.1	40-140	1.15	20		
Di-n-butylphthalate	36.3	10	µg/L	50.0		72.6	40-140	1.85	20		
1,2-Dichlorobenzene	28.3	5.0	µg/L	50.0		56.6	40-140	5.04	20		
1,3-Dichlorobenzene	27.0	5.0	µg/L	50.0		54.1	40-140	3.27	20		
1,4-Dichlorobenzene	27.5	5.0	µg/L	50.0		55.0	40-140	7.86	20		
3,3-Dichlorobenzidine	46.6	10	µg/L	50.0		93.1	40-140	3.76	20		
2,4-Dichlorophenol	35.4	10	µg/L	50.0		70.8	30-130	4.86	20		
Diethylphthalate	35.8	10	µg/L	50.0		71.6	40-140	2.86	20		
2,4-Dimethylphenol	35.2	10	µg/L	50.0		70.4	30-130	2.53	20		
Dimethylphthalate	36.0	10	µg/L	50.0		72.0	40-140	0.837	50		‡
4,6-Dinitro-2-methylphenol	34.1	10	µg/L	50.0		68.2	30-130	1.93	50		‡
2,4-Dinitrophenol	31.4	10	µg/L	50.0		62.8	30-130	1.70	50		‡
2,4-Dinitrotoluene	37.4	10	µg/L	50.0		74.8	40-140	0.240	20		
2,6-Dinitrotoluene	37.8	10	µg/L	50.0		75.6	40-140	4.79	20		
Di-n-octylphthalate	34.4	10	µg/L	50.0		68.7	40-140	2.44	20		
1,2-Diphenylhydrazine/Azobenzene	32.3	10	µg/L	50.0		64.6	40-140	1.22	20		
Fluoranthene	37.3	5.0	µg/L	50.0		74.6	40-140	2.66	20		
Fluorene	35.0	5.0	µg/L	50.0		70.1	40-140	2.46	20		
Hexachlorobenzene	39.0	10	µg/L	50.0		78.0	40-140	3.36	20		
Hexachlorobutadiene	30.4	10	µg/L	50.0		60.9	40-140	7.25	20		
Hexachlorocyclopentadiene	26.2	10	µg/L	50.0		52.5	30-140	3.29	50		† ‡
Hexachloroethane	26.3	10	µg/L	50.0		52.7	40-140	6.67	50		‡
Indeno(1,2,3-cd)pyrene	36.6	5.0	µg/L	50.0		73.2	40-140	3.82	50		‡
Isophorone	36.0	10	µg/L	50.0		72.0	40-140	2.42	20		
1-Methylnaphthalene	33.1	5.0	µg/L	50.0		66.1	40-140	1.92	20		
2-Methylnaphthalene	32.8	5.0	µg/L	50.0		65.5	40-140	4.43	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324188 - SW-846 3510C										
LCS Dup (B324188-BSD1)				Prepared: 11/29/22 Analyzed: 11/30/22						
2-Methylphenol	31.1	10	µg/L	50.0		62.2	30-130	4.07	20	
3/4-Methylphenol	31.8	10	µg/L	50.0		63.5	30-130	7.58	20	
Naphthalene	32.1	5.0	µg/L	50.0		64.2	40-140	4.43	20	
2-Nitroaniline	31.6	10	µg/L	50.0		63.3	40-140	5.89	20	
3-Nitroaniline	36.2	10	µg/L	50.0		72.5	40-140	4.37	20	
4-Nitroaniline	35.5	10	µg/L	50.0		71.0	40-140	3.32	20	
Nitrobenzene	31.0	10	µg/L	50.0		62.1	40-140	5.60	20	
2-Nitrophenol	34.8	10	µg/L	50.0		69.6	30-130	7.20	20	
4-Nitrophenol	22.6	10	µg/L	50.0		45.3	10-130	2.19	50	† ‡
N-Nitrosodimethylamine	23.8	10	µg/L	50.0		47.7	40-140	16.5	20	
N-Nitrosodiphenylamine/Diphenylamine	36.5	10	µg/L	50.0		73.0	40-140	1.19	20	
N-Nitrosodi-n-propylamine	32.6	10	µg/L	50.0		65.2	40-140	3.30	20	
Pentachloronitrobenzene	40.0	10	µg/L	50.0		80.0	40-140	2.30	20	
Pentachlorophenol	30.3	10	µg/L	50.0		60.5	30-130	2.58	50	‡
Phenanthrene	35.4	5.0	µg/L	50.0		70.7	40-140	1.60	20	
Phenol	18.6	10	µg/L	50.0		37.1	20-130	6.40	20	†
Pyrene	33.6	5.0	µg/L	50.0		67.1	40-140	1.38	20	
Pyridine	19.9	5.0	µg/L	50.0		39.9	10-140	8.75	50	† ‡
1,2,4,5-Tetrachlorobenzene	34.4	10	µg/L	50.0		68.8	40-140	1.58	20	
1,2,4-Trichlorobenzene	31.2	5.0	µg/L	50.0		62.5	40-140	6.04	20	
2,4,5-Trichlorophenol	37.0	10	µg/L	50.0		74.0	30-130	3.86	20	
2,4,6-Trichlorophenol	35.3	10	µg/L	50.0		70.5	30-130	1.49	50	‡
Surrogate: 2-Fluorophenol	*94.6*		µg/L	200		47.3	15-110			
Surrogate: Phenol-d6	*67.3*		µg/L	200		33.6	15-110			
Surrogate: Nitrobenzene-d5	*67.1*		µg/L	100		67.1	30-130			
Surrogate: 2-Fluorobiphenyl	*71.1*		µg/L	100		71.1	30-130			
Surrogate: 2,4,6-Tribromophenol	*166*		µg/L	200		82.9	15-110			
Surrogate: p-Terphenyl-d14	*78.3*		µg/L	100		78.3	30-130			

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QUALITY CONTROL

1,4-Dioxane by isotope dilution GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324042 - SW-846 3510C										
Blank (B324042-BLK1)				Prepared: 11/28/22 Analyzed: 12/02/22						
1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	*2.61*		µg/L	10.0		26.1	15-110			
LCS (B324042-BS1)				Prepared: 11/28/22 Analyzed: 12/02/22						
1,4-Dioxane	12.0	0.20	µg/L	10.0		120	40-140			
Surrogate: 1,4-Dioxane-d8	*2.50*		µg/L	10.0		25.0	15-110			
LCS Dup (B324042-BSD1)				Prepared: 11/28/22 Analyzed: 12/02/22						
1,4-Dioxane	12.0	0.20	µg/L	10.0		120	40-140	0.0167	30	
Surrogate: 1,4-Dioxane-d8	*2.55*		µg/L	10.0		25.5	15-110			
Batch B324191 - SW-846 3510C										
Blank (B324191-BLK1)				Prepared: 11/29/22 Analyzed: 12/02/22						
1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	*2.35*		µg/L	10.0		23.5	15-110			
LCS (B324191-BS1)				Prepared: 11/29/22 Analyzed: 12/02/22						
1,4-Dioxane	13.3	0.20	µg/L	10.0		133	40-140			
Surrogate: 1,4-Dioxane-d8	*2.37*		µg/L	10.0		23.7	15-110			
LCS Dup (B324191-BSD1)				Prepared: 11/29/22 Analyzed: 12/02/22						
1,4-Dioxane	15.7	0.20	µg/L	10.0		**157** *	40-140	16.7	30	S-26
Surrogate: 1,4-Dioxane-d8	*1.79*		µg/L	10.0		17.9	15-110			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324035 - SW-846 3510C										
Blank (B324035-BLK1)				Prepared: 11/28/22 Analyzed: 11/30/22						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.88*		µg/L	2.00		94.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.76*		µg/L	2.00		87.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.24*		µg/L	2.00		61.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.27*		µg/L	2.00		63.7	30-150			
LCS (B324035-BS1)				Prepared: 11/28/22 Analyzed: 11/30/22						
Aroclor-1016	0.43	0.20	µg/L	0.500		86.6	40-140			
Aroclor-1016 [2C]	0.39	0.20	µg/L	0.500		77.9	40-140			
Aroclor-1260	0.47	0.20	µg/L	0.500		93.4	40-140			
Aroclor-1260 [2C]	0.38	0.20	µg/L	0.500		75.9	40-140			
Surrogate: Decachlorobiphenyl	*1.87*		µg/L	2.00		93.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.75*		µg/L	2.00		87.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.25*		µg/L	2.00		62.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.28*		µg/L	2.00		64.2	30-150			
LCS Dup (B324035-BSD1)				Prepared: 11/28/22 Analyzed: 11/30/22						
Aroclor-1016	0.46	0.20	µg/L	0.500		91.2	40-140	5.21	20	
Aroclor-1016 [2C]	0.42	0.20	µg/L	0.500		84.0	40-140	7.59	20	
Aroclor-1260	0.49	0.20	µg/L	0.500		97.0	40-140	3.80	20	
Aroclor-1260 [2C]	0.39	0.20	µg/L	0.500		77.3	40-140	1.86	20	
Surrogate: Decachlorobiphenyl	*1.89*		µg/L	2.00		94.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.77*		µg/L	2.00		88.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.30*		µg/L	2.00		65.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.34*		µg/L	2.00		67.1	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324181 - SW-846 3510C										
Blank (B324181-BLK1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.88*		µg/L	2.00		94.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.73*		µg/L	2.00		86.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.69*		µg/L	2.00		84.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.54*		µg/L	2.00		77.1	30-150			
LCS (B324181-BS1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Aroclor-1016	0.40	0.20	µg/L	0.500		80.8	40-140			
Aroclor-1016 [2C]	0.43	0.20	µg/L	0.500		85.8	40-140			
Aroclor-1260	0.39	0.20	µg/L	0.500		78.9	40-140			
Aroclor-1260 [2C]	0.42	0.20	µg/L	0.500		84.1	40-140			
Surrogate: Decachlorobiphenyl	*1.97*		µg/L	2.00		98.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.87*		µg/L	2.00		93.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.59*		µg/L	2.00		79.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.44*		µg/L	2.00		71.9	30-150			
LCS Dup (B324181-BSD1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Aroclor-1016	0.40	0.20	µg/L	0.500		80.8	40-140	0.109	20	
Aroclor-1016 [2C]	0.44	0.20	µg/L	0.500		87.0	40-140	1.38	20	
Aroclor-1260	0.41	0.20	µg/L	0.500		82.5	40-140	4.56	20	
Aroclor-1260 [2C]	0.44	0.20	µg/L	0.500		88.5	40-140	5.13	20	
Surrogate: Decachlorobiphenyl	*1.98*		µg/L	2.00		99.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.90*		µg/L	2.00		94.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.63*		µg/L	2.00		81.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.51*		µg/L	2.00		75.5	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324027 - SW-846 7470A Prep										
Blank (B324027-BLK1)				Prepared: 11/26/22 Analyzed: 11/29/22						
Mercury	ND	0.00010	mg/L							
LCS (B324027-BS1)				Prepared: 11/26/22 Analyzed: 11/29/22						
Mercury	0.00395	0.00010	mg/L	0.00402		98.3	80-120			
LCS Dup (B324027-BSD1)				Prepared: 11/26/22 Analyzed: 11/29/22						
Mercury	0.00409	0.00010	mg/L	0.00402		102	80-120	3.45	20	
Duplicate (B324027-DUP1)		**Source: 22K3399-01**		Prepared: 11/26/22 Analyzed: 11/29/22						
Mercury	ND	0.00010	mg/L		ND			NC	20	
Matrix Spike (B324027-MS1)		**Source: 22K3399-01**		Prepared: 11/26/22 Analyzed: 11/29/22						
Mercury	0.00398	0.00010	mg/L	0.00402	0.0000699	97.3	75-125			
Batch B324237 - SW-846 3005A										
Blank (B324237-BLK1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Sodium	ND	2.0	mg/L							
LCS (B324237-BS1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Sodium	3.99	2.0	mg/L	4.00		99.9	80-120			
LCS Dup (B324237-BSD1)				Prepared: 11/29/22 Analyzed: 11/30/22						
Sodium	3.93	2.0	mg/L	4.00		98.2	80-120	1.70	20	
Duplicate (B324237-DUP1)		**Source: 22K3399-11**		Prepared: 11/29/22 Analyzed: 11/30/22						
Sodium	12.2	2.0	mg/L		12.0			2.37	20	
Matrix Spike (B324237-MS1)		**Source: 22K3399-11**		Prepared: 11/29/22 Analyzed: 11/30/22						
Sodium	15.8	2.0	mg/L	4.00	12.0	96.1	75-125			
Batch B324392 - SW-846 3005A										
Blank (B324392-BLK1)				Prepared: 11/30/22 Analyzed: 12/06/22						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Beryllium	ND	0.40	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324392 - SW-846 3005A										
Blank (B324392-BLK3)				Prepared: 11/30/22 Analyzed: 12/07/22						
Lead	ND	0.50	µg/L							
Thallium	ND	0.20	µg/L							
Zinc	ND	10	µg/L							
LCS (B324392-BS1)				Prepared: 11/30/22 Analyzed: 12/06/22						
Antimony	559	10	µg/L	500		112	80-120			
Arsenic	511	8.0	µg/L	500		102	80-120			
Beryllium	552	4.0	µg/L	500		110	80-120			
Cadmium	527	2.0	µg/L	500		105	80-120			
Chromium	539	10	µg/L	500		108	80-120			
Copper	1040	10	µg/L	1000		104	80-120			
Nickel	523	50	µg/L	500		105	80-120			
Selenium	518	50	µg/L	500		104	80-120			
Silver	521	2.0	µg/L	500		104	80-120			
LCS (B324392-BS3)				Prepared: 11/30/22 Analyzed: 12/07/22						
Lead	518	5.0	µg/L	500		104	80-120			
Thallium	516	2.0	µg/L	500		103	80-120			
Zinc	1040	100	µg/L	1000		104	80-120			
LCS Dup (B324392-BSD1)				Prepared: 11/30/22 Analyzed: 12/06/22						
Antimony	580	10	µg/L	500		116	80-120	3.57	20	
Arsenic	524	8.0	µg/L	500		105	80-120	2.55	20	
Beryllium	569	4.0	µg/L	500		114	80-120	3.12	20	
Cadmium	545	2.0	µg/L	500		109	80-120	3.47	20	
Chromium	552	10	µg/L	500		110	80-120	2.55	20	
Copper	1070	10	µg/L	1000		107	80-120	2.98	20	
Nickel	538	50	µg/L	500		108	80-120	2.72	20	
Selenium	537	50	µg/L	500		107	80-120	3.63	20	
Silver	536	2.0	µg/L	500		107	80-120	2.91	20	
LCS Dup (B324392-BSD3)				Prepared: 11/30/22 Analyzed: 12/07/22						
Lead	541	5.0	µg/L	500		108	80-120	4.37	20	
Thallium	542	2.0	µg/L	500		108	80-120	4.88	20	
Zinc	1060	100	µg/L	1000		106	80-120	1.76	20	

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324161 - EPA 410.4										
Blank (B324161-BLK1)				Prepared & Analyzed: 11/29/22						
Chemical Oxygen Demand	ND	15	mg/L							
LCS (B324161-BS1)				Prepared & Analyzed: 11/29/22						
Chemical Oxygen Demand	200	15	mg/L	200		101	90-110			
LCS Dup (B324161-BSD1)				Prepared & Analyzed: 11/29/22						
Chemical Oxygen Demand	210	15	mg/L	200		103	90-110	1.49	5	
Duplicate (B324161-DUP1)	**Source: 22K3399-01**			Prepared & Analyzed: 11/29/22						
Chemical Oxygen Demand	ND	15	mg/L		ND			NC	48	
Matrix Spike (B324161-MS1)	**Source: 22K3399-01**			Prepared & Analyzed: 11/29/22						
Chemical Oxygen Demand	100	15	mg/L	100	ND	102	90-110			
Batch B324625 - EPA 300.0										
Blank (B324625-BLK1)				Prepared & Analyzed: 12/02/22						
Chloride	ND	1.0	mg/L							
LCS (B324625-BS1)				Prepared & Analyzed: 12/02/22						
Chloride	10	1.0	mg/L	10.0		99.9	90-110			
LCS Dup (B324625-BSD1)				Prepared & Analyzed: 12/02/22						
Chloride	9.6	1.0	mg/L	10.0		96.3	90-110	3.66	20	
Batch B324708 - EPA 410.4										
Blank (B324708-BLK1)				Prepared & Analyzed: 12/03/22						
Chemical Oxygen Demand	ND	15	mg/L							
LCS (B324708-BS1)				Prepared & Analyzed: 12/03/22						
Chemical Oxygen Demand	200	15	mg/L	200		101	90-110			
LCS Dup (B324708-BSD1)				Prepared & Analyzed: 12/03/22						
Chemical Oxygen Demand	200	15	mg/L	200		98.3	90-110	3.14	5	
Duplicate (B324708-DUP1)	**Source: 22K3399-11**			Prepared & Analyzed: 12/03/22						
Chemical Oxygen Demand	ND	15	mg/L		15			NC	48	
MRL Check (B324708-MRL1)				Prepared & Analyzed: 12/03/22						
Chemical Oxygen Demand	11.4	15	mg/L	15.0		75.8	0-200			

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B324708 - EPA 410.4										
MRL Check (B324708-MRL2)				Prepared & Analyzed: 12/03/22						
Chemical Oxygen Demand	17.6	15	mg/L	15.0		118	0-200			
Matrix Spike (B324708-MS1)	**Source: 22K3399-11**			Prepared & Analyzed: 12/03/22						
Chemical Oxygen Demand	120	15	mg/L	100	15	107	90-110			
Batch B324716 - EPA 300.0										
Blank (B324716-BLK1)				Prepared & Analyzed: 12/03/22						
Chloride	ND	1.0	mg/L							
LCS (B324716-BS1)				Prepared & Analyzed: 12/03/22						
Chloride	10	1.0	mg/L	10.0		104	90-110			
LCS Dup (B324716-BSD1)				Prepared & Analyzed: 12/03/22						
Chloride	9.9	1.0	mg/L	10.0		99.2	90-110	5.05	20	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B324035-BS1

Date(s) Analyzed: 11/30/2022 11/30/2022

Instrument ID (1): ECD 9

Instrument ID (2): ECD 9

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.43	
	2	0.000	0.000	0.000	0.39	9.8
Aroclor-1260	1	0.000	0.000	0.000	0.47	
	2	0.000	0.000	0.000	0.38	21.2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B324035-BSD1 Date(s) Analyzed: 11/30/2022 11/30/2022

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.46	
	2	0.000	0.000	0.000	0.42	9.1
Aroclor-1260	1	0.000	0.000	0.000	0.49	
	2	0.000	0.000	0.000	0.39	22.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B324181-BS1

Date(s) Analyzed: 11/30/2022 11/30/2022

Instrument ID (1): ECD4

Instrument ID (2): ECD4

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.40	
	2	0.000	0.000	0.000	0.43	7.2
Aroclor-1260	1	0.000	0.000	0.000	0.39	
	2	0.000	0.000	0.000	0.42	7.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B324181-BSD1

Date(s) Analyzed: 11/30/2022 11/30/2022

Instrument ID (1): ECD4

Instrument ID (2): ECD4

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.40	
	2	0.000	0.000	0.000	0.44	9.5
Aroclor-1260	1	0.000	0.000	0.000	0.41	
	2	0.000	0.000	0.000	0.44	7.1

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
S-26	Surrogate outside of control limits.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 300.0 in Water	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
EPA 410.4 in Water	
Chemical Oxygen Demand	CT,MA,NH,NY,RI,NC,ME,VA
SW-846 6010D in Water	
Sodium	CT,NH,NY,ME,VA,NC
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8260D in Water	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
SW-846 8270E in Water	
1,4-Dioxane	NY,NH
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

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

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
RI	Rhode Island Department of Health	LAO00373	12/30/2023
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023

22K3399

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name: Stone Environmental Inc.
Address: 535 Stone Cutters Way
Phone: 802-229-4541
Project Name: Thetford Landfill (CVPRC)
Project Location: Post Mills, VT (Orange Co) THETFORD, VT
Project Number: 30.096
Project Manager: R. Treat
Pace Quote Name/Number:
Invoice Recipient: Stone acct / R. Treat
Sampled By: LBR / RT

Requested Turnaround Time
7-Day [X] 10-Day [ ]
PFAS 10-Day (std) [X] Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other: Equis EDD
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	I,S 410.4 COD	I,N Sodium 6010 Total	I Chloride SM4500	I 1,4-Dioxane SIM	I 1,4-Dioxane 1633B	I,H 8260 VOCs	I 8270 SVOCs	I 9082 PCBs	I,O PFAS 537.1	I,N PP METALS 6020 (TOTAL)	I,N MERCURY 1471B/7471B(TOTAL)
1	Stone Well	11/21/22	1305	GRAB	GW		2	8	6			X	X	X	X	X	X	X	X	X	X	X
2	BR-201		1350				2	8	6			X	X	X	X	X	X	X	X	X	X	X
3	BR-202		1445				2	8	6			X	X	X	X	X	X	X	X	X	X	X
	FRB-112122		1527				1		1											X		
4	MW-2		1650				2	8	6			X	X	X	X	X	X	X	X	X	X	X
5	LEIBON WELL	↓	1605				2	8	6			X	X	X	X	X	X	X	X	X	X	X
6	BR-1	11/22/22	1095				2	8	6			X	X	X	X	X	X	X	X	X	X	X
7	BR-3		1200				2	8	6			X	X	X	X	X	X	X	X	X	X	X
8	BR-2-FD		1200				2	8	6			X	X	X	X	X	X	X	X	X	X	X
	EB-112222	↓	1220	↓	↓		2	8	6			X	X	X	X	X	X	X	X	X	X	X

Client Comments:

Sample -01 relabeled as BR-4 per client request 12/28/22 KF

Relinquished by: (signature)	J Raposa	Date/Time: 11/22/22 1700
Received by: (signature)	Vital Solutions	Date/Time: 11/22/22 1720
Relinquished by: (signature)	RVD VDS	Date/Time: 11-23-22
Received by: (signature)		Date/Time: 1030
Relinquished by: (signature)		Date/Time: 1310
Received by: (signature)		Date/Time: 11/23/22 1310
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Lab Comments:

Detection Limit Requirements
MA
CT
Other: VTDEC/EPA R2

Special Requirements
MA MCP Required [ ]
MCP Certification Form Required [ ]
CT RCP Required [ ]
RCP Certification Form Required [ ]
MA State DW Required [ ]
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

NELAC and AIHA-LAP, LLC Accredited
Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

22K3399

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 2 of 2

Company Name:	STONE ENVIRONMENTAL INC
Address:	535 STONE CUTTERS WAY
Phone:	802-229-4541
Project Name:	THETFORD LANDFILL (UVRLC)
Project Location:	THETFORD, VT
Project Number:	20-096
Project Manager:	R. TREAT
Pace Quote Name/Number:	
Invoice Recipient:	STONE ACCT. / R. TREAT
Sampled By:	LBR/RJT

Requested Turnaround Time
7-Day [X] 10-Day [ ]
PFAS 10-Day (std) [X] Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other: EQUIS EDD
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	I,S COD 4104	I,N Sodium 6020 TOTAL	I Chloride SM4500	I 1,4-Dioxane SIM	I 5-Dioxin 1613B	I,H 8260 VOCs	I 8270 SVOCs	I 8082 PCBs	I,O PFAS 537.1	I,W PP Metals 6020 (TOTAL)	I,N Mercury 7470/7471 (TOTAL)
9	PMCWS WELL	11/22/22	1440	GRAB	DW		2	8	6			X	X	X	X	X	X	X	X	X	X	X
10	BR-3	↓	1530	↓	GW		↓	↓	↓			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
11	MW-101D	↓	1340	↓	GW		↓	↓	↓			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	TRIP BLANK	LAB	PREPARED						12 (2)													
12	TRIP BLANK	11/22/22	0830				2										X			X		

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) TRIZMA

Relinquished by: (signature)	J Rajniak	Date/Time: 11/22/22 1700
Received by: (signature)	Vital Solutions	Date/Time: 11/22/22 1700
Relinquished by: (signature)		Date/Time: 11-22-22
Received by: (signature)		Date/Time: 11/23/22 1030
Relinquished by: (signature)		Date/Time: 1310
Received by: (signature)		Date/Time: 1310
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VTDEC/EPA RSL

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

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

Client: Stone Env.
Received By: _____ Date: 11/23/22 Time: 1310

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

Were samples within Tempurature? Direct From Sample: _____ Within 2-6°C: T Ambient: _____ By Gun #: 3 By Blank #: _____ Melted Ice: _____ Actual Temp - 4.6, 3.8, 2.4, 2.6 Actual Temp - _____

Was Custody Seal In tact? n/a Was COC Relinquished ? T Were Samples Tampered with? n/a Does Chain Agree With Samples? T

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

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

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

Are Sample labels filled out and legible? T

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

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? T Is there enough Volume? T

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

Proper Media/Containers Used? T splitting samples require F

Were trip blanks receive T On COC? T

Do All Samples Have the proper pH? Acid T Base n/a

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	88	1 Liter Plastic		16 oz Amb.	
HCL-	24	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	44	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

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February 9, 2023

Rebecca Treat
Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602

Project Location: Thetford, VT
Client Job Number:
Project Number: 20-096
Laboratory Work Order Number: 22L2419

Enclosed are results of analyses for samples as received by the laboratory on December 16, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

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

Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 2/9/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22L2419

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	22L2419-01	Ground Water		-	
				EPA 1613B	CT PH-0256/NY11647/MN00064
				EPA 410.4	
				SM21-23 4500 CL B	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
Trip Blank	22L2419-02	Ground Water		SW-846 8260D	

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CASE NARRATIVE SUMMARY

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

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

SW-846 8260D

Qualifications:

L-02

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

Analyte & Samples(s) Qualified:

Chloromethane
B326254-BS1, B326254-BSD1

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Methyl tert-Butyl Ether (MTBE)
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1

tert-Amyl Methyl Ether (TAME)
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1

tert-Butyl Ethyl Ether (TBEE)
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Bromoform
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1, S080953-CCV1

Methyl tert-Butyl Ether (MTBE)
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1, S080953-CCV1

tert-Amyl Methyl Ether (TAME)
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1, S080953-CCV1

tert-Butyl Ethyl Ether (TBEE)
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1, S080953-CCV1

trans-1,4-Dichloro-2-butene
22L2419-01[MW-1], 22L2419-02[Trip Blank], B326254-BLK1, B326254-BS1, B326254-BSD1, S080953-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Chloromethane
B326254-BS1, B326254-BSD1, S080953-CCV1

SW-846 8270E

Qualifications:

R-05

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

Analyte & Samples(s) Qualified:

Benzidine
22L2419-01[MW-1], B326366-BLK1, B326366-BS1, B326366-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine
22L2419-01[MW-1], B326366-BLK1, B326366-BS1, B326366-BSD1, S081062-CCV1

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V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

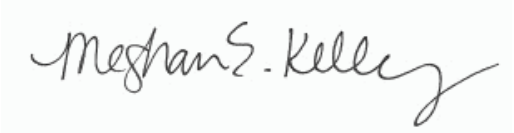
Aniline
22L2419-01[MW-1], B326366-BLK1, B326366-BS1, B326366-BSD1, S081062-CCV1

Benzidine
22L2419-01[MW-1], B326366-BLK1, B326366-BS1, B326366-BSD1, S081062-CCV1

Di-n-octylphthalate
22L2419-01[MW-1], B326366-BLK1, B326366-BS1, B326366-BSD1, S081062-CCV1

Hexachlorocyclopentadiene
22L2419-01[MW-1], B326366-BLK1, B326366-BS1, B326366-BSD1, S081062-CCV1

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



Meghan E. Kelley
Reporting Specialist

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1	L-04, V-05	SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Bromoform	ND	1.0	0.38	µg/L	1	V-05	SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1	L-04, V-05	SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF

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

Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1	L-04, V-05	SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Naphthalene	ND	2.0	0.24	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	12/19/22	12/20/22 15:15	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.6	70-130		12/20/22 15:15
Toluene-d8	104	70-130		12/20/22 15:15
4-Bromofluorobenzene	99.0	70-130		12/20/22 15:15

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.4	0.56	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Acenaphthylene	ND	5.4	0.52	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Acetophenone	ND	11	0.57	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Aniline	ND	5.4	0.75	µg/L	1	V-05	SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Anthracene	ND	5.4	0.49	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Benzidine	ND	22	11	µg/L	1	R-05, V-04, V-05	SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Benzo(a)anthracene	ND	5.4	0.44	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Benzo(a)pyrene	ND	5.4	0.61	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Benzo(b)fluoranthene	ND	5.4	0.51	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Benzo(g,h,i)perylene	ND	5.4	0.66	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Benzo(k)fluoranthene	ND	5.4	0.53	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Benzoic Acid	ND	11	9.1	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Bis(2-chloroethoxy)methane	ND	11	0.49	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Bis(2-chloroethyl)ether	ND	11	0.61	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Bis(2-chloroisopropyl)ether	ND	11	0.74	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Bis(2-Ethylhexyl)phthalate	ND	11	0.90	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
4-Bromophenylphenylether	ND	11	0.50	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Butylbenzylphthalate	ND	11	0.73	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Carbazole	ND	11	0.46	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
4-Chloroaniline	ND	11	0.62	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
4-Chloro-3-methylphenol	ND	11	0.60	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2-Chloronaphthalene	ND	11	0.52	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2-Chlorophenol	ND	11	0.51	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
4-Chlorophenylphenylether	ND	11	0.52	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Chrysene	ND	5.4	0.43	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Dibenz(a,h)anthracene	ND	5.4	0.74	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Dibenzofuran	ND	5.4	0.52	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Di-n-butylphthalate	ND	11	0.49	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
1,2-Dichlorobenzene	ND	5.4	0.72	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
1,3-Dichlorobenzene	ND	5.4	0.72	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
1,4-Dichlorobenzene	ND	5.4	0.72	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
3,3-Dichlorobenzidine	ND	11	0.76	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2,4-Dichlorophenol	ND	11	0.51	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Diethylphthalate	ND	11	0.45	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2,4-Dimethylphenol	ND	11	0.75	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Dimethylphthalate	ND	11	0.40	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
4,6-Dinitro-2-methylphenol	ND	11	7.6	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2,4-Dinitrophenol	ND	11	8.7	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2,4-Dinitrotoluene	ND	11	0.66	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2,6-Dinitrotoluene	ND	11	0.56	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Di-n-octylphthalate	ND	11	4.2	µg/L	1	V-05	SW-846 8270E	12/20/22	12/21/22 17:01	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	11	0.62	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Fluoranthene	ND	5.4	0.46	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Fluorene	ND	5.4	0.56	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	11	0.54	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Hexachlorobutadiene	ND	11	0.83	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Hexachlorocyclopentadiene	ND	11	4.0	µg/L	1	V-05	SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Hexachloroethane	ND	11	0.80	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Indeno(1,2,3-cd)pyrene	ND	5.4	0.80	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Isophorone	ND	11	0.59	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
1-Methylnaphthalene	ND	5.4	0.65	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2-Methylnaphthalene	ND	5.4	0.74	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2-Methylphenol	ND	11	0.51	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
3/4-Methylphenol	ND	11	0.49	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Naphthalene	ND	5.4	0.66	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2-Nitroaniline	ND	11	0.75	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
3-Nitroaniline	ND	11	0.63	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
4-Nitroaniline	ND	11	0.64	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Nitrobenzene	ND	11	0.67	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2-Nitrophenol	ND	11	0.55	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
4-Nitrophenol	ND	11	2.3	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
N-Nitrosodimethylamine	ND	11	0.84	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	11	0.41	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
N-Nitrosodi-n-propylamine	ND	11	0.66	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Pentachloronitrobenzene	ND	11	0.67	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Pentachlorophenol	ND	11	3.8	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Phenanthrene	ND	5.4	0.51	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Phenol	ND	11	0.24	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Pyrene	ND	5.4	0.66	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
Pyridine	ND	5.4	2.7	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
1,2,4,5-Tetrachlorobenzene	ND	11	0.70	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
1,2,4-Trichlorobenzene	ND	5.4	0.72	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2,4,5-Trichlorophenol	ND	11	0.55	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL
2,4,6-Trichlorophenol	ND	11	0.48	µg/L	1		SW-846 8270E	12/20/22	12/21/22 17:01	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	47.7	15-110		12/21/22 17:01
Phenol-d6	35.6	15-110		12/21/22 17:01
Nitrobenzene-d5	63.7	30-130		12/21/22 17:01
2-Fluorobiphenyl	66.3	30-130		12/21/22 17:01
2,4,6-Tribromophenol	75.5	15-110		12/21/22 17:01
p-Terphenyl-d14	82.0	30-130		12/21/22 17:01

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.21	µg/L	1		SW-846 8270E	12/21/22	12/23/22 17:12	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	28.7	15-110					12/23/22 17:12

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1221 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1232 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1242 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1248 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1254 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1260 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1262 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3
Aroclor-1268 [1]	ND	0.21	µg/L	1		SW-846 8082A	12/19/22	12/21/22 2:10	SB3

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	66.7	30-150		12/21/22 2:10
Decachlorobiphenyl [2]	73.6	30-150		12/21/22 2:10
Tetrachloro-m-xylene [1]	60.6	30-150		12/21/22 2:10
Tetrachloro-m-xylene [2]	66.5	30-150		12/21/22 2:10

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Arsenic	ND	0.80	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Beryllium	ND	0.40	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Cadmium	ND	0.20	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Chromium	ND	1.0	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Copper	ND	1.0	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Lead	ND	0.50	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	12/20/22	12/21/22 14:20	AAJ
Nickel	ND	5.0	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Selenium	ND	5.0	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Silver	ND	0.20	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Thallium	ND	0.20	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW
Zinc	ND	10	µg/L	1		SW-846 6020B	12/19/22	12/20/22 17:37	QNW

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chemical Oxygen Demand	ND	15	mg/L	1		EPA 410.4	12/20/22	12/20/22 12:30	DRA
Chloride	3.7	1.0	mg/L	1		SM21-23 4500 CL B	12/19/22	12/19/22 10:45	DET

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: MW-1 | Sampled: 12/14/2022 13:30

Sample ID: 22L2419-01

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Subcontracted Report	See Attache		pg/L	1		EPA 1613B	12/22/22	12/29/22 20:28	PMN

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: Trip Blank | Sampled: 12/14/2022 00:00

Sample ID: 22L2419-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1	L-04, V-05	SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Bromoform	ND	1.0	0.38	µg/L	1	V-05	SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Bromomethane	ND	2.0	1.5	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
2-Butanone (MEK)	ND	20	1.6	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1	L-04, V-05	SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Chloromethane	ND	2.0	0.52	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	V-05	SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF

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Project Location: Thetford, VT | Sample Description: | Work Order: 22L2419

Date Received: 12/16/2022

Field Sample #: Trip Blank | Sampled: 12/14/2022 00:00

Sample ID: 22L2419-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Methyl Acetate	ND	1.0	0.45	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1	L-04, V-05	SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Naphthalene	ND	2.0	0.24	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	12/19/22	12/20/22 13:06	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	102	70-130		12/20/22 13:06
Toluene-d8	105	70-130		12/20/22 13:06
4-Bromofluorobenzene	100	70-130		12/20/22 13:06

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Sample Extraction Data

EPA 410.4

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326309	2.00	2.00	12/20/22

SM21-23 4500 CL B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326214	100	100	12/19/22

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326238	50.0	50.0	12/19/22

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326330	10.0	10.0	12/20/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326197	950	10.0	12/19/22

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326254	5	5.00	12/19/22
22L2419-02 [Trip Blank]	B326254	5	5.00	12/19/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326366	930	1.00	12/20/22

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22L2419-01 [MW-1]	B326448	945	1.00	12/21/22

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326254 - SW-846 5030B										
Blank (B326254-BLK1)				Prepared: 12/19/22 Analyzed: 12/20/22						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							L-04, V-05
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							V-05
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							L-04, V-05
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							V-05
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B326254 - SW-846 5030B												
Blank (B326254-BLK1)				Prepared: 12/19/22 Analyzed: 12/20/22								
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L								L-04, V-05	
Methyl Cyclohexane	ND	1.0	µg/L									
Methylene Chloride	ND	5.0	µg/L									
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L									
Naphthalene	ND	2.0	µg/L									
n-Propylbenzene	ND	1.0	µg/L									
Styrene	ND	1.0	µg/L									
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L									
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L									
Tetrachloroethylene	ND	1.0	µg/L									
Tetrahydrofuran	ND	10	µg/L									
Toluene	ND	1.0	µg/L									
1,2,3-Trichlorobenzene	ND	5.0	µg/L									
1,2,4-Trichlorobenzene	ND	1.0	µg/L									
1,3,5-Trichlorobenzene	ND	1.0	µg/L									
1,1,1-Trichloroethane	ND	1.0	µg/L									
1,1,2-Trichloroethane	ND	1.0	µg/L									
Trichloroethylene	ND	1.0	µg/L									
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L									
1,2,3-Trichloropropane	ND	2.0	µg/L									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L									
1,2,4-Trimethylbenzene	ND	1.0	µg/L									
1,3,5-Trimethylbenzene	ND	1.0	µg/L									
Vinyl Chloride	ND	2.0	µg/L									
m+p Xylene	ND	2.0	µg/L									
o-Xylene	ND	1.0	µg/L									
Surrogate: 1,2-Dichloroethane-d4	*25.4*		µg/L	25.0		102		70-130				
Surrogate: Toluene-d8	*25.2*		µg/L	25.0		101		70-130				
Surrogate: 4-Bromofluorobenzene	*25.0*		µg/L	25.0		100		70-130				
LCS (B326254-BS1)				Prepared: 12/19/22 Analyzed: 12/20/22								
Acetone	92.3	50	µg/L	100		92.3		70-160				†
Acrylonitrile	10.4	5.0	µg/L	10.0		104		70-130				
tert-Amyl Methyl Ether (TAME)	2.21	0.50	µg/L	10.0		**22.1**	*	70-130			L-04, V-05	
Benzene	11.0	1.0	µg/L	10.0		110		70-130				
Bromobenzene	10.1	1.0	µg/L	10.0		101		70-130				
Bromochloromethane	11.5	1.0	µg/L	10.0		115		70-130				
Bromodichloromethane	9.95	0.50	µg/L	10.0		99.5		70-130				
Bromoform	8.23	1.0	µg/L	10.0		82.3		70-130			V-05	
Bromomethane	9.70	2.0	µg/L	10.0		97.0		40-160				†
2-Butanone (MEK)	106	20	µg/L	100		106		40-160				†
tert-Butyl Alcohol (TBA)	97.3	20	µg/L	100		97.3		40-160				†
n-Butylbenzene	11.0	1.0	µg/L	10.0		110		70-130				
sec-Butylbenzene	9.89	1.0	µg/L	10.0		98.9		70-130				
tert-Butylbenzene	9.59	1.0	µg/L	10.0		95.9		70-130				
tert-Butyl Ethyl Ether (TBEE)	3.25	0.50	µg/L	10.0		**32.5**	*	70-130			L-04, V-05	
Carbon Disulfide	110	5.0	µg/L	100		110		70-130				
Carbon Tetrachloride	9.70	5.0	µg/L	10.0		97.0		70-130				
Chlorobenzene	10.1	1.0	µg/L	10.0		101		70-130				
Chlorodibromomethane	9.01	0.50	µg/L	10.0		90.1		70-130				
Chloroethane	10.4	2.0	µg/L	10.0		104		70-130				
Chloroform	10.4	2.0	µg/L	10.0		104		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B326254 - SW-846 5030B												
LCS (B326254-BS1)				Prepared: 12/19/22 Analyzed: 12/20/22								
Chloromethane	32.3	2.0	µg/L	10.0		**323**	*	40-160			L-02, V-20	†
2-Chlorotoluene	9.96	1.0	µg/L	10.0		99.6		70-130				
4-Chlorotoluene	10.3	1.0	µg/L	10.0		103		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	8.03	5.0	µg/L	10.0		80.3		70-130				
1,2-Dibromoethane (EDB)	10.5	0.50	µg/L	10.0		105		70-130				
Dibromomethane	10.4	1.0	µg/L	10.0		104		70-130				
1,2-Dichlorobenzene	10.0	1.0	µg/L	10.0		100		70-130				
1,3-Dichlorobenzene	10.1	1.0	µg/L	10.0		101		70-130				
1,4-Dichlorobenzene	10.2	1.0	µg/L	10.0		102		70-130				
trans-1,4-Dichloro-2-butene	7.19	2.0	µg/L	10.0		71.9		70-130			V-05	
Dichlorodifluoromethane (Freon 12)	11.6	2.0	µg/L	10.0		116		40-160				†
1,1-Dichloroethane	10.2	1.0	µg/L	10.0		102		70-130				
1,2-Dichloroethane	9.42	1.0	µg/L	10.0		94.2		70-130				
1,1-Dichloroethylene	9.84	1.0	µg/L	10.0		98.4		70-130				
cis-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102		70-130				
trans-1,2-Dichloroethylene	9.77	1.0	µg/L	10.0		97.7		70-130				
1,2-Dichloropropane	10.6	1.0	µg/L	10.0		106		70-130				
1,3-Dichloropropane	10.5	0.50	µg/L	10.0		105		70-130				
2,2-Dichloropropane	8.96	1.0	µg/L	10.0		89.6		40-130				†
1,1-Dichloropropene	10.7	2.0	µg/L	10.0		107		70-130				
cis-1,3-Dichloropropene	9.94	0.50	µg/L	10.0		99.4		70-130				
trans-1,3-Dichloropropene	9.68	0.50	µg/L	10.0		96.8		70-130				
Diethyl Ether	10.7	2.0	µg/L	10.0		107		70-130				
Diisopropyl Ether (DIPE)	11.0	0.50	µg/L	10.0		110		70-130				
1,4-Dioxane	94.8	50	µg/L	100		94.8		40-130				†
Ethylbenzene	10.4	1.0	µg/L	10.0		104		70-130				
Hexachlorobutadiene	10.1	0.60	µg/L	10.0		101		70-130				
2-Hexanone (MBK)	93.5	10	µg/L	100		93.5		70-160				†
Isopropylbenzene (Cumene)	9.87	1.0	µg/L	10.0		98.7		70-130				
p-Isopropyltoluene (p-Cymene)	10.1	1.0	µg/L	10.0		101		70-130				
Methyl Acetate	10.6	1.0	µg/L	10.0		106		70-130				
Methyl tert-Butyl Ether (MTBE)	6.67	1.0	µg/L	10.0		**66.7**	*	70-130			L-04, V-05	
Methyl Cyclohexane	11.8	1.0	µg/L	10.0		118		70-130				
Methylene Chloride	9.86	5.0	µg/L	10.0		98.6		70-130				
4-Methyl-2-pentanone (MIBK)	91.5	10	µg/L	100		91.5		70-160				†
Naphthalene	9.57	2.0	µg/L	10.0		95.7		40-130				†
n-Propylbenzene	10.5	1.0	µg/L	10.0		105		70-130				
Styrene	10.3	1.0	µg/L	10.0		103		70-130				
1,1,1,2-Tetrachloroethane	9.42	1.0	µg/L	10.0		94.2		70-130				
1,1,2,2-Tetrachloroethane	9.44	0.50	µg/L	10.0		94.4		70-130				
Tetrachloroethylene	10.3	1.0	µg/L	10.0		103		70-130				
Tetrahydrofuran	9.92	10	µg/L	10.0		99.2		70-130			J	
Toluene	10.5	1.0	µg/L	10.0		105		70-130				
1,2,3-Trichlorobenzene	10.3	5.0	µg/L	10.0		103		70-130				
1,2,4-Trichlorobenzene	10.6	1.0	µg/L	10.0		106		70-130				
1,3,5-Trichlorobenzene	11.1	1.0	µg/L	10.0		111		70-130				
1,1,1-Trichloroethane	10.0	1.0	µg/L	10.0		100		70-130				
1,1,2-Trichloroethane	10.5	1.0	µg/L	10.0		105		70-130				
Trichloroethylene	10.3	1.0	µg/L	10.0		103		70-130				
Trichlorofluoromethane (Freon 11)	9.99	2.0	µg/L	10.0		99.9		70-130				
1,2,3-Trichloropropane	11.7	2.0	µg/L	10.0		117		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B326254 - SW-846 5030B												
LCS (B326254-BS1)				Prepared: 12/19/22 Analyzed: 12/20/22								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.2	1.0	µg/L	10.0		112		70-130				
1,2,4-Trimethylbenzene	9.95	1.0	µg/L	10.0		99.5		70-130				
1,3,5-Trimethylbenzene	10.3	1.0	µg/L	10.0		103		70-130				
Vinyl Chloride	11.2	2.0	µg/L	10.0		112		40-160				†
m+p Xylene	20.2	2.0	µg/L	20.0		101		70-130				
o-Xylene	9.78	1.0	µg/L	10.0		97.8		70-130				
Surrogate: 1,2-Dichloroethane-d4	*25.4*		µg/L	25.0		102		70-130				
Surrogate: Toluene-d8	*26.2*		µg/L	25.0		105		70-130				
Surrogate: 4-Bromofluorobenzene	*25.6*		µg/L	25.0		102		70-130				
LCS Dup (B326254-BSD1)				Prepared: 12/19/22 Analyzed: 12/20/22								
Acetone	91.0	50	µg/L	100		91.0		70-160	1.43	25		†
Acrylonitrile	10.4	5.0	µg/L	10.0		104		70-130	0.385	25		
tert-Amyl Methyl Ether (TAME)	2.28	0.50	µg/L	10.0		**22.8**	*	70-130	3.12	25	L-04, V-05	
Benzene	11.2	1.0	µg/L	10.0		112		70-130	2.43	25		
Bromobenzene	10.2	1.0	µg/L	10.0		102		70-130	1.28	25		
Bromochloromethane	11.4	1.0	µg/L	10.0		114		70-130	0.524	25		
Bromodichloromethane	9.89	0.50	µg/L	10.0		98.9		70-130	0.605	25		
Bromoform	8.11	1.0	µg/L	10.0		81.1		70-130	1.47	25	V-05	
Bromomethane	11.3	2.0	µg/L	10.0		113		40-160	15.0	25		†
2-Butanone (MEK)	105	20	µg/L	100		105		40-160	0.456	25		†
tert-Butyl Alcohol (TBA)	93.8	20	µg/L	100		93.8		40-160	3.68	25		†
n-Butylbenzene	11.1	1.0	µg/L	10.0		111		70-130	0.903	25		
sec-Butylbenzene	10.5	1.0	µg/L	10.0		105		70-130	5.89	25		
tert-Butylbenzene	10.2	1.0	µg/L	10.0		102		70-130	6.36	25		
tert-Butyl Ethyl Ether (TBEE)	3.26	0.50	µg/L	10.0		**32.6**	*	70-130	0.307	25	L-04, V-05	
Carbon Disulfide	115	5.0	µg/L	100		115		70-130	3.97	25		
Carbon Tetrachloride	10.1	5.0	µg/L	10.0		101		70-130	4.24	25		
Chlorobenzene	10.4	1.0	µg/L	10.0		104		70-130	2.24	25		
Chlorodibromomethane	9.24	0.50	µg/L	10.0		92.4		70-130	2.52	25		
Chloroethane	10.6	2.0	µg/L	10.0		106		70-130	1.81	25		
Chloroform	10.6	2.0	µg/L	10.0		106		70-130	2.00	25		
Chloromethane	33.1	2.0	µg/L	10.0		**331**	*	40-160	2.48	25	L-02, V-20	†
2-Chlorotoluene	10.2	1.0	µg/L	10.0		102		70-130	2.09	25		
4-Chlorotoluene	10.3	1.0	µg/L	10.0		103		70-130	0.0971	25		
1,2-Dibromo-3-chloropropane (DBCP)	8.88	5.0	µg/L	10.0		88.8		70-130	10.1	25		
1,2-Dibromoethane (EDB)	10.3	0.50	µg/L	10.0		103		70-130	2.40	25		
Dibromomethane	9.94	1.0	µg/L	10.0		99.4		70-130	4.62	25		
1,2-Dichlorobenzene	10.5	1.0	µg/L	10.0		105		70-130	4.50	25		
1,3-Dichlorobenzene	10.4	1.0	µg/L	10.0		104		70-130	2.83	25		
1,4-Dichlorobenzene	10.4	1.0	µg/L	10.0		104		70-130	2.43	25		
trans-1,4-Dichloro-2-butene	7.31	2.0	µg/L	10.0		73.1		70-130	1.66	25	V-05	
Dichlorodifluoromethane (Freon 12)	12.3	2.0	µg/L	10.0		123		40-160	5.78	25		†
1,1-Dichloroethane	10.5	1.0	µg/L	10.0		105		70-130	3.29	25		
1,2-Dichloroethane	9.40	1.0	µg/L	10.0		94.0		70-130	0.213	25		
1,1-Dichloroethylene	10.4	1.0	µg/L	10.0		104		70-130	5.15	25		
cis-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102		70-130	0.784	25		
trans-1,2-Dichloroethylene	10.1	1.0	µg/L	10.0		101		70-130	3.32	25		
1,2-Dichloropropane	10.7	1.0	µg/L	10.0		107		70-130	0.749	25		
1,3-Dichloropropane	10.7	0.50	µg/L	10.0		107		70-130	2.26	25		
2,2-Dichloropropane	9.12	1.0	µg/L	10.0		91.2		40-130	1.77	25		†
1,1-Dichloropropene	11.0	2.0	µg/L	10.0		110		70-130	2.95	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B326254 - SW-846 5030B												
LCS Dup (B326254-BSD1)				Prepared: 12/19/22 Analyzed: 12/20/22								
cis-1,3-Dichloropropene	10.1	0.50	µg/L	10.0		101		70-130	1.70	25		
trans-1,3-Dichloropropene	9.97	0.50	µg/L	10.0		99.7		70-130	2.95	25		
Diethyl Ether	10.8	2.0	µg/L	10.0		108		70-130	1.02	25		
Diisopropyl Ether (DIPE)	11.2	0.50	µg/L	10.0		112		70-130	1.17	25		
1,4-Dioxane	87.7	50	µg/L	100		87.7		40-130	7.76	50		† ‡
Ethylbenzene	10.5	1.0	µg/L	10.0		105		70-130	1.53	25		
Hexachlorobutadiene	11.2	0.60	µg/L	10.0		112		70-130	10.2	25		
2-Hexanone (MBK)	90.0	10	µg/L	100		90.0		70-160	3.82	25		†
Isopropylbenzene (Cumene)	10.2	1.0	µg/L	10.0		102		70-130	3.39	25		
p-Isopropyltoluene (p-Cymene)	10.7	1.0	µg/L	10.0		107		70-130	6.15	25		
Methyl Acetate	10.5	1.0	µg/L	10.0		105		70-130	0.757	25		
Methyl tert-Butyl Ether (MTBE)	6.68	1.0	µg/L	10.0		**66.8**	*	70-130	0.150	25	L-04, V-05	
Methyl Cyclohexane	12.3	1.0	µg/L	10.0		123		70-130	3.57	25		
Methylene Chloride	10.2	5.0	µg/L	10.0		102		70-130	3.78	25		
4-Methyl-2-pentanone (MIBK)	88.9	10	µg/L	100		88.9		70-160	2.86	25		†
Naphthalene	9.43	2.0	µg/L	10.0		94.3		40-130	1.47	25		†
n-Propylbenzene	10.7	1.0	µg/L	10.0		107		70-130	2.36	25		
Styrene	10.6	1.0	µg/L	10.0		106		70-130	3.54	25		
1,1,1,2-Tetrachloroethane	9.76	1.0	µg/L	10.0		97.6		70-130	3.55	25		
1,1,2,2-Tetrachloroethane	9.50	0.50	µg/L	10.0		95.0		70-130	0.634	25		
Tetrachloroethylene	10.4	1.0	µg/L	10.0		104		70-130	1.45	25		
Tetrahydrofuran	9.86	10	µg/L	10.0		98.6		70-130	0.607	25	J	
Toluene	10.4	1.0	µg/L	10.0		104		70-130	0.954	25		
1,2,3-Trichlorobenzene	10.6	5.0	µg/L	10.0		106		70-130	3.24	25		
1,2,4-Trichlorobenzene	10.8	1.0	µg/L	10.0		108		70-130	1.87	25		
1,3,5-Trichlorobenzene	11.9	1.0	µg/L	10.0		119		70-130	7.05	25		
1,1,1-Trichloroethane	10.2	1.0	µg/L	10.0		102		70-130	1.49	25		
1,1,2-Trichloroethane	10.3	1.0	µg/L	10.0		103		70-130	2.02	25		
Trichloroethylene	10.6	1.0	µg/L	10.0		106		70-130	2.67	25		
Trichlorofluoromethane (Freon 11)	10.4	2.0	µg/L	10.0		104		70-130	3.93	25		
1,2,3-Trichloropropane	11.5	2.0	µg/L	10.0		115		70-130	1.73	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.9	1.0	µg/L	10.0		119		70-130	5.89	25		
1,2,4-Trimethylbenzene	10.3	1.0	µg/L	10.0		103		70-130	3.55	25		
1,3,5-Trimethylbenzene	10.6	1.0	µg/L	10.0		106		70-130	2.87	25		
Vinyl Chloride	12.2	2.0	µg/L	10.0		122		40-160	8.78	25		†
m+p Xylene	20.8	2.0	µg/L	20.0		104		70-130	2.54	25		
o-Xylene	10.2	1.0	µg/L	10.0		102		70-130	4.50	25		
Surrogate: 1,2-Dichloroethane-d4	*24.6*		µg/L	25.0		98.6		70-130				
Surrogate: Toluene-d8	*26.1*		µg/L	25.0		105		70-130				
Surrogate: 4-Bromofluorobenzene	*25.2*		µg/L	25.0		101		70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326366 - SW-846 3510C										
Blank (B326366-BLK1)				Prepared: 12/20/22 Analyzed: 12/21/22						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							V-05
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							R-05, V-04, V-05
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							V-05
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							V-05
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326366 - SW-846 3510C										
Blank (B326366-BLK1)				Prepared: 12/20/22 Analyzed: 12/21/22						
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*94.0*		µg/L	200		47.0	15-110			
Surrogate: Phenol-d6	*69.5*		µg/L	200		34.7	15-110			
Surrogate: Nitrobenzene-d5	*65.6*		µg/L	100		65.6	30-130			
Surrogate: 2-Fluorobiphenyl	*65.0*		µg/L	100		65.0	30-130			
Surrogate: 2,4,6-Tribromophenol	*170*		µg/L	200		85.0	15-110			
Surrogate: p-Terphenyl-d14	*88.4*		µg/L	100		88.4	30-130			
LCS (B326366-BS1)				Prepared: 12/20/22 Analyzed: 12/21/22						
Acenaphthene	34.5	5.0	µg/L	50.0		69.0	40-140			
Acenaphthylene	34.9	5.0	µg/L	50.0		69.8	40-140			
Acetophenone	32.6	10	µg/L	50.0		65.3	40-140			
Aniline	25.4	5.0	µg/L	50.0		50.8	40-140			V-05
Anthracene	37.5	5.0	µg/L	50.0		75.0	40-140			
Benzidine	20.3	20	µg/L	50.0		40.5	40-140			R-05, V-04, V-05
Benzo(a)anthracene	36.5	5.0	µg/L	50.0		73.0	40-140			
Benzo(a)pyrene	33.8	5.0	µg/L	50.0		67.6	40-140			
Benzo(b)fluoranthene	35.8	5.0	µg/L	50.0		71.6	40-140			
Benzo(g,h,i)perylene	37.1	5.0	µg/L	50.0		74.1	40-140			
Benzo(k)fluoranthene	38.2	5.0	µg/L	50.0		76.4	40-140			
Benzoic Acid	14.5	10	µg/L	50.0		29.0	10-130			†
Bis(2-chloroethoxy)methane	34.1	10	µg/L	50.0		68.2	40-140			
Bis(2-chloroethyl)ether	34.5	10	µg/L	50.0		69.0	40-140			
Bis(2-chloroisopropyl)ether	33.6	10	µg/L	50.0		67.2	40-140			
Bis(2-Ethylhexyl)phthalate	35.9	10	µg/L	50.0		71.8	40-140			
4-Bromophenylphenylether	37.0	10	µg/L	50.0		73.9	40-140			
Butylbenzylphthalate	36.0	10	µg/L	50.0		72.1	40-140			
Carbazole	38.4	10	µg/L	50.0		76.8	40-140			
4-Chloroaniline	30.0	10	µg/L	50.0		60.1	40-140			
4-Chloro-3-methylphenol	35.4	10	µg/L	50.0		70.8	30-130			
2-Chloronaphthalene	29.0	10	µg/L	50.0		58.0	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B326366 - SW-846 3510C											
LCS (B326366-BS1)				Prepared: 12/20/22 Analyzed: 12/21/22							
2-Chlorophenol	32.4	10	µg/L	50.0		64.8	30-130				
4-Chlorophenylphenylether	36.9	10	µg/L	50.0		73.8	40-140				
Chrysene	37.2	5.0	µg/L	50.0		74.3	40-140				
Dibenz(a,h)anthracene	33.9	5.0	µg/L	50.0		67.8	40-140				
Dibenzofuran	36.4	5.0	µg/L	50.0		72.8	40-140				
Di-n-butylphthalate	38.4	10	µg/L	50.0		76.7	40-140				
1,2-Dichlorobenzene	24.1	5.0	µg/L	50.0		48.1	40-140				
1,3-Dichlorobenzene	22.3	5.0	µg/L	50.0		44.6	40-140				
1,4-Dichlorobenzene	23.3	5.0	µg/L	50.0		46.6	40-140				
3,3-Dichlorobenzidine	42.8	10	µg/L	50.0		85.7	40-140				
2,4-Dichlorophenol	34.5	10	µg/L	50.0		69.0	30-130				
Diethylphthalate	36.6	10	µg/L	50.0		73.2	40-140				
2,4-Dimethylphenol	34.8	10	µg/L	50.0		69.6	30-130				
Dimethylphthalate	37.7	10	µg/L	50.0		75.3	40-140				
4,6-Dinitro-2-methylphenol	35.7	10	µg/L	50.0		71.4	30-130				
2,4-Dinitrophenol	32.6	10	µg/L	50.0		65.1	30-130				
2,4-Dinitrotoluene	38.9	10	µg/L	50.0		77.8	40-140				
2,6-Dinitrotoluene	39.7	10	µg/L	50.0		79.3	40-140				
Di-n-octylphthalate	31.6	10	µg/L	50.0		63.2	40-140			V-05	
1,2-Diphenylhydrazine/Azobenzene	34.2	10	µg/L	50.0		68.4	40-140				
Fluoranthene	39.2	5.0	µg/L	50.0		78.5	40-140				
Fluorene	36.9	5.0	µg/L	50.0		73.7	40-140				
Hexachlorobenzene	38.6	10	µg/L	50.0		77.3	40-140				
Hexachlorobutadiene	26.8	10	µg/L	50.0		53.6	40-140				
Hexachlorocyclopentadiene	24.8	10	µg/L	50.0		49.7	30-140			V-05	†
Hexachloroethane	21.1	10	µg/L	50.0		42.2	40-140				
Indeno(1,2,3-cd)pyrene	36.0	5.0	µg/L	50.0		72.0	40-140				
Isophorone	36.2	10	µg/L	50.0		72.4	40-140				
1-Methylnaphthalene	32.5	5.0	µg/L	50.0		65.1	40-140				
2-Methylnaphthalene	32.0	5.0	µg/L	50.0		63.9	40-140				
2-Methylphenol	32.2	10	µg/L	50.0		64.5	30-130				
3/4-Methylphenol	32.4	10	µg/L	50.0		64.9	30-130				
Naphthalene	30.8	5.0	µg/L	50.0		61.5	40-140				
2-Nitroaniline	32.9	10	µg/L	50.0		65.8	40-140				
3-Nitroaniline	35.8	10	µg/L	50.0		71.6	40-140				
4-Nitroaniline	37.2	10	µg/L	50.0		74.4	40-140				
Nitrobenzene	31.3	10	µg/L	50.0		62.6	40-140				
2-Nitrophenol	33.1	10	µg/L	50.0		66.1	30-130				
4-Nitrophenol	24.7	10	µg/L	50.0		49.3	10-130				†
N-Nitrosodimethylamine	22.7	10	µg/L	50.0		45.4	40-140				
N-Nitrosodiphenylamine/Diphenylamine	38.6	10	µg/L	50.0		77.2	40-140				
N-Nitrosodi-n-propylamine	33.8	10	µg/L	50.0		67.7	40-140				
Pentachloronitrobenzene	39.7	10	µg/L	50.0		79.4	40-140				
Pentachlorophenol	31.3	10	µg/L	50.0		62.7	30-130				
Phenanthrene	36.9	5.0	µg/L	50.0		73.9	40-140				
Phenol	17.0	10	µg/L	50.0		34.0	20-130				†
Pyrene	35.4	5.0	µg/L	50.0		70.7	40-140				
Pyridine	15.0	5.0	µg/L	50.0		30.0	10-140				†
1,2,4,5-Tetrachlorobenzene	33.4	10	µg/L	50.0		66.7	40-140				
1,2,4-Trichlorobenzene	28.7	5.0	µg/L	50.0		57.4	40-140				
2,4,5-Trichlorophenol	37.2	10	µg/L	50.0		74.3	30-130				
2,4,6-Trichlorophenol	35.6	10	µg/L	50.0		71.2	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes	
Batch B326366 - SW-846 3510C												
LCS (B326366-BS1)				Prepared: 12/20/22 Analyzed: 12/21/22								
Surrogate: 2-Fluorophenol	*101*		µg/L	200		50.7	15-110					
Surrogate: Phenol-d6	*72.2*		µg/L	200		36.1	15-110					
Surrogate: Nitrobenzene-d5	*66.2*		µg/L	100		66.2	30-130					
Surrogate: 2-Fluorobiphenyl	*69.4*		µg/L	100		69.4	30-130					
Surrogate: 2,4,6-Tribromophenol	*175*		µg/L	200		87.6	15-110					
Surrogate: p-Terphenyl-d14	*81.4*		µg/L	100		81.4	30-130					
LCS Dup (B326366-BSD1)				Prepared: 12/20/22 Analyzed: 12/21/22								
Acenaphthene	35.2	5.0	µg/L	50.0		70.5	40-140	2.06		20		
Acenaphthylene	35.5	5.0	µg/L	50.0		71.0	40-140	1.73		20		
Acetophenone	35.5	10	µg/L	50.0		71.0	40-140	8.42		20		
Aniline	28.2	5.0	µg/L	50.0		56.4	40-140	10.4		50	V-05	‡
Anthracene	38.0	5.0	µg/L	50.0		76.1	40-140	1.38		20		
Benzidine	28.5	20	µg/L	50.0		57.0	40-140	**33.8**	*	20	R-05, V-04, V-05	
Benzo(a)anthracene	37.2	5.0	µg/L	50.0		74.4	40-140	1.98		20		
Benzo(a)pyrene	33.8	5.0	µg/L	50.0		67.5	40-140	0.178		20		
Benzo(b)fluoranthene	36.1	5.0	µg/L	50.0		72.2	40-140	0.807		20		
Benzo(g,h,i)perylene	36.1	5.0	µg/L	50.0		72.2	40-140	2.62		20		
Benzo(k)fluoranthene	39.0	5.0	µg/L	50.0		77.9	40-140	1.89		20		
Benzoic Acid	15.2	10	µg/L	50.0		30.5	10-130	4.84		50		† ‡
Bis(2-chloroethoxy)methane	35.0	10	µg/L	50.0		69.9	40-140	2.58		20		
Bis(2-chloroethyl)ether	36.1	10	µg/L	50.0		72.1	40-140	4.42		20		
Bis(2-chloroisopropyl)ether	34.8	10	µg/L	50.0		69.6	40-140	3.54		20		
Bis(2-Ethylhexyl)phthalate	36.1	10	µg/L	50.0		72.3	40-140	0.722		20		
4-Bromophenylphenylether	36.9	10	µg/L	50.0		73.8	40-140	0.135		20		
Butylbenzylphthalate	36.6	10	µg/L	50.0		73.2	40-140	1.54		20		
Carbazole	38.5	10	µg/L	50.0		77.0	40-140	0.312		20		
4-Chloroaniline	33.5	10	µg/L	50.0		67.0	40-140	10.9		20		
4-Chloro-3-methylphenol	36.3	10	µg/L	50.0		72.5	30-130	2.43		20		
2-Chloronaphthalene	30.1	10	µg/L	50.0		60.1	40-140	3.66		20		
2-Chlorophenol	32.7	10	µg/L	50.0		65.3	30-130	0.892		20		
4-Chlorophenylphenylether	36.7	10	µg/L	50.0		73.4	40-140	0.489		20		
Chrysene	37.6	5.0	µg/L	50.0		75.2	40-140	1.18		20		
Dibenz(a,h)anthracene	34.1	5.0	µg/L	50.0		68.1	40-140	0.441		20		
Dibenzofuran	36.8	5.0	µg/L	50.0		73.7	40-140	1.12		20		
Di-n-butylphthalate	37.6	10	µg/L	50.0		75.3	40-140	1.90		20		
1,2-Dichlorobenzene	25.2	5.0	µg/L	50.0		50.4	40-140	4.63		20		
1,3-Dichlorobenzene	23.5	5.0	µg/L	50.0		47.0	40-140	5.07		20		
1,4-Dichlorobenzene	24.2	5.0	µg/L	50.0		48.4	40-140	3.79		20		
3,3-Dichlorobenzidine	45.6	10	µg/L	50.0		91.2	40-140	6.20		20		
2,4-Dichlorophenol	34.5	10	µg/L	50.0		68.9	30-130	0.116		20		
Diethylphthalate	36.7	10	µg/L	50.0		73.4	40-140	0.355		20		
2,4-Dimethylphenol	36.3	10	µg/L	50.0		72.5	30-130	4.08		20		
Dimethylphthalate	38.3	10	µg/L	50.0		76.7	40-140	1.79		50		‡
4,6-Dinitro-2-methylphenol	35.4	10	µg/L	50.0		70.8	30-130	0.900		50		‡
2,4-Dinitrophenol	31.4	10	µg/L	50.0		62.8	30-130	3.66		50		‡
2,4-Dinitrotoluene	39.6	10	µg/L	50.0		79.1	40-140	1.71		20		
2,6-Dinitrotoluene	41.6	10	µg/L	50.0		83.2	40-140	4.75		20		
Di-n-octylphthalate	31.5	10	µg/L	50.0		62.9	40-140	0.444		20	V-05	
1,2-Diphenylhydrazine/Azobenzene	34.8	10	µg/L	50.0		69.6	40-140	1.68		20		
Fluoranthene	39.2	5.0	µg/L	50.0		78.4	40-140	0.102		20		
Fluorene	37.4	5.0	µg/L	50.0		74.9	40-140	1.53		20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B326366 - SW-846 3510C											
LCS Dup (B326366-BSD1)				Prepared: 12/20/22 Analyzed: 12/21/22							
Hexachlorobenzene	39.3	10	µg/L	50.0		78.7	40-140	1.77	20		
Hexachlorobutadiene	27.1	10	µg/L	50.0		54.1	40-140	1.04	20		
Hexachlorocyclopentadiene	25.4	10	µg/L	50.0		50.8	30-140	2.31	50	V-05	† ‡
Hexachloroethane	22.3	10	µg/L	50.0		44.5	40-140	5.49	50		‡
Indeno(1,2,3-cd)pyrene	35.6	5.0	µg/L	50.0		71.3	40-140	1.00	50		‡
Isophorone	37.6	10	µg/L	50.0		75.1	40-140	3.72	20		
1-Methylnaphthalene	34.6	5.0	µg/L	50.0		69.1	40-140	6.05	20		
2-Methylnaphthalene	33.0	5.0	µg/L	50.0		66.0	40-140	3.14	20		
2-Methylphenol	33.1	10	µg/L	50.0		66.2	30-130	2.57	20		
3/4-Methylphenol	33.3	10	µg/L	50.0		66.6	30-130	2.65	20		
Naphthalene	31.9	5.0	µg/L	50.0		63.8	40-140	3.70	20		
2-Nitroaniline	34.2	10	µg/L	50.0		68.5	40-140	4.02	20		
3-Nitroaniline	37.6	10	µg/L	50.0		75.2	40-140	4.91	20		
4-Nitroaniline	37.5	10	µg/L	50.0		75.0	40-140	0.830	20		
Nitrobenzene	31.2	10	µg/L	50.0		62.5	40-140	0.192	20		
2-Nitrophenol	34.4	10	µg/L	50.0		68.7	30-130	3.80	20		
4-Nitrophenol	24.9	10	µg/L	50.0		49.8	10-130	1.01	50		† ‡
N-Nitrosodimethylamine	22.8	10	µg/L	50.0		45.7	40-140	0.615	20		
N-Nitrosodiphenylamine/Diphenylamine	38.3	10	µg/L	50.0		76.5	40-140	0.807	20		
N-Nitrosodi-n-propylamine	35.9	10	µg/L	50.0		71.7	40-140	5.83	20		
Pentachloronitrobenzene	41.8	10	µg/L	50.0		83.5	40-140	5.06	20		
Pentachlorophenol	29.6	10	µg/L	50.0		59.1	30-130	5.78	50		‡
Phenanthrene	37.4	5.0	µg/L	50.0		74.9	40-140	1.40	20		
Phenol	17.7	10	µg/L	50.0		35.4	20-130	4.04	20		†
Pyrene	36.1	5.0	µg/L	50.0		72.1	40-140	1.96	20		
Pyridine	14.9	5.0	µg/L	50.0		29.7	10-140	0.804	50		† ‡
1,2,4,5-Tetrachlorobenzene	34.0	10	µg/L	50.0		68.0	40-140	1.90	20		
1,2,4-Trichlorobenzene	29.3	5.0	µg/L	50.0		58.6	40-140	1.97	20		
2,4,5-Trichlorophenol	38.3	10	µg/L	50.0		76.6	30-130	3.05	20		
2,4,6-Trichlorophenol	36.3	10	µg/L	50.0		72.6	30-130	1.95	50		‡
Surrogate: 2-Fluorophenol	*96.5*		µg/L	200		48.2	15-110				
Surrogate: Phenol-d6	*74.6*		µg/L	200		37.3	15-110				
Surrogate: Nitrobenzene-d5	*67.5*		µg/L	100		67.5	30-130				
Surrogate: 2-Fluorobiphenyl	*72.1*		µg/L	100		72.1	30-130				
Surrogate: 2,4,6-Tribromophenol	*168*		µg/L	200		84.2	15-110				
Surrogate: p-Terphenyl-d14	*82.8*		µg/L	100		82.8	30-130				

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QUALITY CONTROL

1,4-Dioxane by isotope dilution GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326448 - SW-846 3510C										
Blank (B326448-BLK1)				Prepared: 12/21/22 Analyzed: 12/23/22						
1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	*2.73*		µg/L	10.0		27.3	15-110			
LCS (B326448-BS1)				Prepared: 12/21/22 Analyzed: 12/23/22						
1,4-Dioxane	11.8	0.20	µg/L	10.0		118	40-140			
Surrogate: 1,4-Dioxane-d8	*2.95*		µg/L	10.0		29.5	15-110			
LCS Dup (B326448-BSD1)				Prepared: 12/21/22 Analyzed: 12/23/22						
1,4-Dioxane	12.1	0.20	µg/L	10.0		121	40-140	2.93	30	
Surrogate: 1,4-Dioxane-d8	*2.87*		µg/L	10.0		28.7	15-110			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326197 - SW-846 3510C										
Blank (B326197-BLK1)				Prepared: 12/19/22 Analyzed: 12/21/22						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.08*		µg/L	2.00		54.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.23*		µg/L	2.00		61.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.10*		µg/L	2.00		55.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.19*		µg/L	2.00		59.4	30-150			
LCS (B326197-BS1)				Prepared: 12/19/22 Analyzed: 12/21/22						
Aroclor-1016	0.32	0.20	µg/L	0.500		63.3	40-140			
Aroclor-1016 [2C]	0.38	0.20	µg/L	0.500		75.0	40-140			
Aroclor-1260	0.33	0.20	µg/L	0.500		65.9	40-140			
Aroclor-1260 [2C]	0.35	0.20	µg/L	0.500		70.4	40-140			
Surrogate: Decachlorobiphenyl	*1.23*		µg/L	2.00		61.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.39*		µg/L	2.00		69.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.16*		µg/L	2.00		58.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.26*		µg/L	2.00		63.0	30-150			
LCS Dup (B326197-BSD1)				Prepared: 12/19/22 Analyzed: 12/21/22						
Aroclor-1016	0.29	0.20	µg/L	0.500		58.5	40-140	7.91	20	
Aroclor-1016 [2C]	0.36	0.20	µg/L	0.500		72.4	40-140	3.54	20	
Aroclor-1260	0.36	0.20	µg/L	0.500		71.8	40-140	8.53	20	
Aroclor-1260 [2C]	0.35	0.20	µg/L	0.500		69.8	40-140	0.836	20	
Surrogate: Decachlorobiphenyl	*1.36*		µg/L	2.00		67.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.59*		µg/L	2.00		79.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.06*		µg/L	2.00		53.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.27*		µg/L	2.00		63.7	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326238 - SW-846 3005A										
Blank (B326238-BLK1)				Prepared: 12/19/22 Analyzed: 12/20/22						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Beryllium	ND	0.40	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Thallium	ND	0.20	µg/L							
Zinc	ND	10	µg/L							
LCS (B326238-BS1)				Prepared: 12/19/22 Analyzed: 12/20/22						
Antimony	530	10	µg/L	500		106	80-120			
Arsenic	519	8.0	µg/L	500		104	80-120			
Beryllium	506	4.0	µg/L	500		101	80-120			
Cadmium	521	2.0	µg/L	500		104	80-120			
Chromium	523	10	µg/L	500		105	80-120			
Copper	1050	10	µg/L	1000		105	80-120			
Lead	524	5.0	µg/L	500		105	80-120			
Nickel	540	50	µg/L	500		108	80-120			
Selenium	492	50	µg/L	500		98.5	80-120			
Silver	510	2.0	µg/L	500		102	80-120			
Thallium	525	2.0	µg/L	500		105	80-120			
Zinc	1060	100	µg/L	1000		106	80-120			
LCS Dup (B326238-BSD1)				Prepared: 12/19/22 Analyzed: 12/20/22						
Antimony	547	10	µg/L	500		109	80-120	3.15	20	
Arsenic	534	8.0	µg/L	500		107	80-120	2.84	20	
Beryllium	523	4.0	µg/L	500		105	80-120	3.29	20	
Cadmium	537	2.0	µg/L	500		107	80-120	2.91	20	
Chromium	537	10	µg/L	500		107	80-120	2.68	20	
Copper	1070	10	µg/L	1000		107	80-120	2.45	20	
Lead	538	5.0	µg/L	500		108	80-120	2.56	20	
Nickel	554	50	µg/L	500		111	80-120	2.53	20	
Selenium	509	50	µg/L	500		102	80-120	3.41	20	
Silver	527	2.0	µg/L	500		105	80-120	3.30	20	
Thallium	539	2.0	µg/L	500		108	80-120	2.64	20	
Zinc	1090	100	µg/L	1000		109	80-120	2.39	20	
Batch B326330 - SW-846 7470A Prep										
Blank (B326330-BLK1)				Prepared: 12/20/22 Analyzed: 12/21/22						
Mercury	ND	0.00010	mg/L							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326330 - SW-846 7470A Prep										
LCS (B326330-BS1)				Prepared: 12/20/22 Analyzed: 12/21/22						
Mercury	0.00406	0.00010	mg/L	0.00402		101	80-120			
LCS Dup (B326330-BSD1)				Prepared: 12/20/22 Analyzed: 12/21/22						
Mercury	0.00359	0.00010	mg/L	0.00402		89.3	80-120	12.4	20	

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B326214 - SM21-23 4500 CL B										
Blank (B326214-BLK1)				Prepared & Analyzed: 12/19/22						
Chloride	ND	1.0	mg/L							
LCS (B326214-BS1)				Prepared & Analyzed: 12/19/22						
Chloride	49	1.0	mg/L	49.1		100	84.6-110			
LCS Dup (B326214-BSD1)				Prepared & Analyzed: 12/19/22						
Chloride	49	1.0	mg/L	49.1		100	84.6-110	0.00	7.35	
Duplicate (B326214-DUP1)	**Source: 22L2419-01**			Prepared & Analyzed: 12/19/22						
Chloride	3.7	1.0	mg/L		3.7			0.00	13.9	
Matrix Spike (B326214-MS1)	**Source: 22L2419-01**			Prepared & Analyzed: 12/19/22						
Chloride	14	1.0	mg/L	10.0	3.7	101	68.4-135			
Batch B326309 - EPA 410.4										
Blank (B326309-BLK1)				Prepared & Analyzed: 12/20/22						
Chemical Oxygen Demand	ND	15	mg/L							
LCS (B326309-BS1)				Prepared & Analyzed: 12/20/22						
Chemical Oxygen Demand	190	15	mg/L	200		96.5	90-110			
LCS Dup (B326309-BSD1)				Prepared & Analyzed: 12/20/22						
Chemical Oxygen Demand	200	15	mg/L	200		101	90-110	4.65	5	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B326197-BS1

Date(s) Analyzed: 12/21/2022 12/21/2022

Instrument ID (1): ECD3

Instrument ID (2): ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.32	
	2	0.000	0.000	0.000	0.38	17.1
Aroclor-1260	1	0.000	0.000	0.000	0.33	
	2	0.000	0.000	0.000	0.35	5.9

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B326197-BSD1 Date(s) Analyzed: 12/21/2022 12/21/2022

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.29	
	2	0.000	0.000	0.000	0.36	21.5
Aroclor-1260	1	0.000	0.000	0.000	0.36	
	2	0.000	0.000	0.000	0.35	2.8

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.

J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-02	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 410.4 in Water	
Chemical Oxygen Demand	CT,MA,NH,NY,RI,NC,ME,VA
SM21-23 4500 CL B in Water	
Chloride	NH,CT,MA,RI,NC,ME,VA,NY
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8260D in Water	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
SW-846 8270E in Water	
1,4-Dioxane	NY,NH
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

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

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
RI	Rhode Island Department of Health	LAO00373	12/30/2023
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023

22C2419

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Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Stone Environmental Inc.
Address:	535 Stone Cutters Way Montpelier, VT 05602
Phone:	978-621-9490
Project Name:	Thetford Landfill (UVBU)
Project Location:	Thetford, VT
Project Number:	20-096
Project Manager:	R. Treat
Pace Quote Name/Number:	
Invoice Recipient:	Stone accts / R. Treat
Sampled By:	APR

Requested Turnaround Time
7-Day [X] 10-Day [ ]
PFAS 10-Day (std) [X] Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other: Equis EDP
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PFAS 537.1	PCBs 8082	SVOCs 8270	PP-13 Metals (Sodium Hold)	7470/7471	VOCs 8260	1,4 Dioxane SIM	5-Dioxin 1613B	Chloride SM4500	COD 410.4
1	MW-01	12/14/22	13:30	Grab	GW		4	8	5			X	X	X	X	X	X	X	X	X	X
2	Trip blank	LAB Prepared			O		2					~~X~~ APR					X				

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) blank H2O

Relinquished by: (signature)	Date/Time:	12/14/22 15:45
Received by: (signature)	Date/Time:	12/14/22 15:45
Relinquished by: (signature)	Date/Time:	12/15/22 1042
Received by: (signature) VDS CY	Date/Time:	12/15/22 10:42
Relinquished by: (signature) VDS	Date/Time:	121622
Received by: (signature)	Date/Time:	12/16/22 930
Relinquished by: (signature)	Date/Time:	12/16/22 1340
Received by: (signature) 2.1	Date/Time:	12/16 1340

Client Comments:

Detection Limit Requirements
MA
CT 0.5 ppb
Other: VTDEC

Special Requirements
MA MCP Required [ ]
MCP Certification Form Required
CT RCP Required [ ]
RCP Certification Form Required
MA State DW Required [ ]
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

Other
Chromatogram [ ]
AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

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

Client Received By SET Date 12/16/22 Time 1340

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

Were samples within Tempurature? Within 2-6°C T By Gun # S Actual Temp - 2.1
By Blank # _____ Actual Temp - _____

Was Custody Seal In tact? NA Were Samples Tampered with? NA

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

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

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

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

Are Sample labels filled out and legible? T

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

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? T Is there enough Volume? T

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

Proper Media/Containers Used? T splitting samples required F

Were trip blanks receive _____ On COC? _____

Do All Samples Have the proper pH? NA Acid _____ Base NA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	5	1 Liter Plastic		16 oz Amb.	
HCL-	4	500 mL Amb.		500 mL Plastic	1	8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Kaitlyn Feliciano
Con-Test Laboratories

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 10637620
Sample Receipt Date: 12/20/2022
Client Project #: 22L2419 Stone Env
Client Sub PO #: N/A
State Cert #: N/A

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Isaac Johnson, your Pace Project Manager.

This report has been reviewed by:

Isaac Johnson

January 04, 2023

Isaac Johnson, Project Manager
(612) 607-1700
(612) 607-6444 (fax)
isaac.johnson@pacelabs.com

Report Prepared Date:
January 4, 2023

Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Pace Analytical™

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Con-Test Analytical Laboratory. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The estimated detection limits (EDLs) were based on signal-to-noise measurements. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 35-167%. Except for three high values, which were flagged "R" on the results table, the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained. Concentrations below the calibration range were flagged "J" and should be regarded as estimates.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to contain trace levels of selected congeners. These levels were below the calibration range of the method. Sample levels similar to the corresponding blank levels were flagged "B" on the results tables and may be, at least partially, attributed to the background.

Laboratory spike samples were also prepared with the sample batch using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 69-128% with relative percent differences (RPDs) of 0.0-32.7%. The RPD value obtained for 1,2,3,7,8,9-HxCDD was above the 20% target upper limit and may indicate elevated variability for this congener in these determinations. Matrix spikes were not prepared with the sample batch.

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Missouri	10100
Alabama	40770	Montana	CERT0092
Alaska-DW	MN00064	Nebraska	NE-OS-18-06
Alaska-UST	17-009	Nevada	MN00064
Arizona	AZ0014	New Hampshire	2081
Arkansas - WW	88-0680	New Jersey	MN002
Arkansas-DW	MN00064	New York	11647
California	2929	North Carolina-	27700
Colorado	MN00064	North Carolina-	530
Connecticut	PH-0256	North Dakota	R-036
Florida	E87605	Ohio-DW	41244
Georgia	959	Ohio-VAP (170	CL101
Hawaii	MN00064	Ohio-VAP (180	CL110
Idaho	MN00064	Oklahoma	9507
Illinois	200011	Oregon-Primary	MN300001
Indiana	C-MN-01	Oregon-Second	MN200001
Iowa	368	Pennsylvania	68-00563
Kansas	E-10167	Puerto Rico	MN00064
Kentucky-DW	90062	South Carolina	74003
Kentucky-WW	90062	Tennessee	TN02818
Louisiana-DEQ	AI-84596	Texas	T104704192
Louisiana-DW	MN00064	Utah	MN00064
Maine	MN00064	Vermont	VT-027053137
Maryland	322	Virginia	460163
Michigan	9909	Washington	C486
Minnesota	027-053-137	West Virginia-D	382
Minnesota-Ag	via MN 027-053	West Virginia-D	9952C
Minnesota-Petr	1240	Wisconsin	999407970
Mississippi	MN00064	Wyoming-UST	via A2LA 2926.

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Appendix A

Sample Management

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SUBCONTRACT CHAIN OF CUSTODY

Pace New England

22L2419

SENDING LABORATORY:

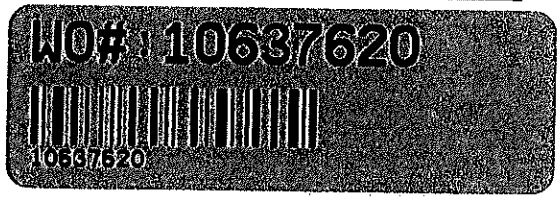
Pace New England
39 Spruce Street
East Longmeadow, MA 01028
Phone: 413.525.2332
Fax: 413.525.6405
Project Manager: Kaitlyn A. Feliciano

RECEIVING LABORATORY:

Pace Analytical Laboratory - MN
1700 Elm Street
Minneapolis, MN 55414
Phone :(612) 607-1700
Fax: (612) 607-6444

Analysis	Due	Expires	Comments
Sample ID: 22L2419-01	**Water** **Sampled:**	**12/14/22 13:30**	
S-Dioxins/Furans	12/27/22 15:30	12/21/22 13:30	
Containers Supplied:			
1 L amber (G) 1 L amber (H)			

001



T=1.9°C

Released By	Date	Received By	Date
[signature]	12/19/22	1700 [signature] Pace	12/20/22 850
Released By	Date	Received By	Date

Sample Condition Upon Receipt

Client Name: Pace New England

Project #: WO#: 10637620
PM: KJV Due Date: 01/12/23
CLIENT: CON-TEST

Courier: [X] FedEx [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial

[ ] See Exceptions ENV-FRM-MIN4-0142

Tracking Number: 770825588448

Custody Seal on Cooler/Box Present? [ ] Yes [X] No **Seals Intact?** [ ] Yes [X] No

Biological Tissue Frozen? [ ] Yes [ ] No [X] N/A

Packing Material: [ ] Bubble Wrap [X] Bubble Bags [ ] None [ ] Other

Temp Blank? [ ] Yes [X] No

Thermometer: [ ] T1 (0461) [ ] T2 (1336) [ ] T3 (0459) [X] T4 (0254) [ ] T5 (0178) [ ] T6 (0235) [ ] T7 (0042) [ ] T8 (0775) [ ] T9(0727) [ ] 01339252/1710

Type of Ice: [X] Wet [ ] Blue [ ] Dry [ ] None [ ] Melted

Did Samples Originate in West Virginia? [ ] Yes [X] No

Were All Container Temps Taken? [ ] Yes [ ] No [X] N/A

Temp should be above freezing to 6 °C

Cooler temp Read w/Temp Blank: _____ °C

Average Corrected Temp (no temp blank only): 1.9 °C

[X] See Exceptions ENV-FRM-MIN4-0142 [ ] 1 Container

Correction Factor: +0.2

Cooler Temp Corrected w/temp blank: _____ °C

USDA Regulated Soil: ([X] N/A, water sample/other: _____)

Date/Initials of Person Examining Contents: 12/20/22 NV

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? [ ] Yes [ ] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [ ] No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

				COMMENTS
Location (Check one): [ ] Duluth [X] Minneapolis [ ] Virginia				
Chain of Custody Present and Filled Out?	[X] Yes	[ ] No		1.
Chain of Custody Relinquished?	[X] Yes	[ ] No		2.
Sampler Name and/or Signature on COC?	[ ] Yes	[ ] No	[X] N/A	3.
Samples Arrived within Hold Time?	[X] Yes	[ ] No		4. If fecal: [ ] <8 hrs [ ] >8 hr, <24 [ ] No
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No		5. [ ] Fecal Coliform [ ] HPC [ ] Total Coliform/E.coli [ ] BOD/cBOD [ ] Hex Chrom [ ] Turbidity [ ] Nitrate [ ] Nitrite [ ] Orthophos [ ] Other _____
Rush Turn Around Time Requested?	[X] Yes ~~[ ] No~~			6. 12/27 NVB 12/20/22
Sufficient Sample Volume?	[X] Yes	[ ] No		7.
Correct Containers Used?	[X] Yes	[ ] No	[ ] N/A	8.
-Pace Containers Used?	[X] Yes	[ ] No		
Containers Intact?	[X] Yes	[ ] No		9.
Field Filtered Volume Received for Dissolved Tests?	[ ] Yes	[ ] No	[X] N/A	10. Is sediment visible in the dissolved container? [ ] Yes [ ] No
Is sufficient information available to reconcile the samples to the COC?	[X] Yes	[ ] No		11. **If no, write ID/Date/Time of container below:** [ ] See Exceptions ENV-FRM-MIN4-0142
Matrix: [X] Water [ ] Soil [ ] Oil [ ] Other				
All containers needing acid/base preservation have been checked?	[ ] Yes	[ ] No	[X] N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	[ ] Yes	[ ] No	[X] N/A	[ ] NaOH [ ] HNO3 [ ] H2SO4 [ ] Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	[ ] Yes	[ ] No	[X] N/A	Positive for Residual Chlorine? [ ] Yes [ ] No [ ] See Exceptions ENV-FRM-MIN4-0142
				pH Paper Lot #
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	[ ] Yes	[ ] No	[X] N/A	13.
Extra labels present on soil VOA or WIDRO containers?	[ ] Yes	[ ] No	[X] N/A	14. [ ] See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	[ ] Yes	[ ] No	[X] N/A	
3 Trip Blanks Present?	[ ] Yes	[ ] No	[X] N/A	15.
Trip Blank Custody Seals Present?	[ ] Yes	[ ] No	[X] N/A	Pace Trip Blank Lot # (If purchased): _____
				Field Data Required? [ ] Yes [ ] No

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Isaac Johnson **Date:** 12/21/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: NV **Line:** 1

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-MIN4-0142 v02_Sample Condition Upon Receipt (SCUR) Exception Form
	Effective Date: 09/22/2022

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp
1.4	1.6	1.9
2.1	2.3	

PM Notified of Out of Temp Cooler? ☐ Yes ☐ No

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

Multiple Cooler Project? ☐ Yes ☐ No

If anything is OVER 6.0° C, you MUST document containers in this section HERE

Tracking Number	Temperature

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	

Comments:

_____

_____

_____

22C2419

Pace Analytical
Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests
http://www.pacelabs.com
39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

CHAIN OF CUSTODY RECORD

Company Name:	Stone Environmental Inc.
Address:	535 Stone Cutters Way Montpelier, VT 05602
Phone:	978-621-9490
Project Name:	Thetford Landfill (UVRIX)
Project Location:	Thetford, VT
Project Number:	20-096
Project Manager:	R. Treat
Pace Quote Name/Number:	
Invoice Recipient:	Stone accts / R. Treat
Sampled By:	APR

Requested Turnaround Time
7-Day [X] 10-Day [ ]
PFAS 10-Day (std) [X] Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other: Equis EDD
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

	Sample ID	Collection Date/Time	Sample Type	Matrix	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PFAS 537.1	PCBs 8082	SVOCs 8270 625	PP-13 Metals (Sodium dissolved)	7470/7471	VOCs 8260	1,4 Dioxane SIM	2-Dioxin 1613B	Chloride SM4500	COD 410.4
1	MW-01	12/14/22 13:30	Grab	GW	4	8	5			X	X	X	X	X	X	X	X	X	X
2	Trip blank	12/8 Proposed		O	2					X					X				

Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
Pace Analytical is not responsible for missing samples from prepacked coolers

Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) Blank H2O

	Date/Time:
Relinquished by: (signature)	12/14/22 15:45
Received by: (signature)	12/14/22 1845
Relinquished by: (signature)	12/15/22 1042
Received by: (signature) VDS CY	12/15/22 1042
Relinquished by: (signature) VDS	12/16/22
Received by: (signature)	12/16/22 930
Relinquished by: (signature)	12/16/22 1340
Received by: (signature) 2.1	12/16 1340

Client Comments:

Detection Limit Requirements
MA
CT 09:40
Other: VT DW
PWSID #

Special Requirements
[ ] MA MCP Required
[ ] MCP Certification Form Required
[ ] CT RCP Required
[ ] RCP Certification Form Required
[ ] MA State DW Required

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

H2 = Extracted outside of holding time

I = Isotope ratio out of specification

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	22L2419-01		
Lab Sample ID	10637620001		
Filename	L221229A_14		
Injected By	AH5		
Total Amount Extracted	904 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	12/14/2022 13:30
ICAL ID	L220811	Received	12/20/2022 08:50
CCal Filename(s)	L221229A_02	Extracted	12/22/2022 11:40
Method Blank ID	BLANK-103172	Analyzed	12/29/2022 20:28

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	1.2		2,3,7,8-TCDF-13C	2.00	48
Total TCDF	ND	—	1.2		2,3,7,8-TCDD-13C	2.00	35
					1,2,3,7,8-PeCDF-13C	2.00	49
2,3,7,8-TCDD	ND	—	1.7		2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	ND	—	1.7		1,2,3,7,8-PeCDD-13C	2.00	45
					1,2,3,4,7,8-HxCDF-13C	2.00	167 R
1,2,3,7,8-PeCDF	ND	—	1.1		1,2,3,6,7,8-HxCDF-13C	2.00	157 R
2,3,4,7,8-PeCDF	ND	—	0.68		2,3,4,6,7,8-HxCDF-13C	2.00	122
Total PeCDF	ND	—	0.68		1,2,3,7,8,9-HxCDF-13C	2.00	51
					1,2,3,4,7,8-HxCDD-13C	2.00	133
1,2,3,7,8-PeCDD	ND	—	1.3		1,2,3,6,7,8-HxCDD-13C	2.00	159 R
Total PeCDD	ND	—	1.3		1,2,3,4,6,7,8-HpCDF-13C	2.00	136
					1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	ND	—	0.74		1,2,3,4,6,7,8-HpCDD-13C	2.00	99
1,2,3,6,7,8-HxCDF	ND	—	0.80		OCDD-13C	4.00	61
2,3,4,6,7,8-HxCDF	ND	—	1.0				
1,2,3,7,8,9-HxCDF	ND	—	3.2		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	0.74		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	2.4	—	1.5	BJ	2,3,7,8-TCDD-37Cl4	0.20	36
1,2,3,6,7,8-HxCDD	ND	—	1.3				
1,2,3,7,8,9-HxCDD	ND	—	1.1				
Total HxCDD	2.4	—	1.1	BJ			
1,2,3,4,6,7,8-HpCDF	ND	—	1.6		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	4.9		Equivalence: 0.24 pg/L		
Total HpCDF	ND	—	1.6		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	—	3.0				
Total HpCDD	ND	—	3.0				
OCDF	ND	—	8.3				
OCDD	ND	—	10				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Estimated value
B = Less than 10x higher than method blank level
R = Recovery outside target range

REPORT OF LABORATORY ANALYSIS

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Pace Analytical™

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKGP	Matrix	Water
Lab Sample ID	BLANK-103172	Dilution	NA
Filename	L221229A_06	Extracted	12/22/2022 11:40
Total Amount Extracted	1020 mL	Analyzed	12/29/2022 14:55
ICAL ID	L220811	Injected By	AH5
CCal Filename(s)	L221229A_02		

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	0.66		2,3,7,8-TCDF-13C	2.00	56
Total TCDF	ND	—	0.66		2,3,7,8-TCDD-13C	2.00	48
					1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	ND	—	0.89		2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	ND	—	0.89		1,2,3,7,8-PeCDD-13C	2.00	58
					1,2,3,4,7,8-HxCDF-13C	2.00	70
1,2,3,7,8-PeCDF	ND	—	0.62		1,2,3,6,7,8-HxCDF-13C	2.00	69
2,3,4,7,8-PeCDF	ND	—	0.41		2,3,4,6,7,8-HxCDF-13C	2.00	67
Total PeCDF	ND	—	0.41		1,2,3,7,8,9-HxCDF-13C	2.00	51
					1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	ND	—	0.72		1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	ND	—	0.72		1,2,3,4,6,7,8-HpCDF-13C	2.00	58
					1,2,3,4,7,8,9-HpCDF-13C	2.00	44
1,2,3,4,7,8-HxCDF	ND	—	0.58		1,2,3,4,6,7,8-HpCDD-13C	2.00	59
1,2,3,6,7,8-HxCDF	ND	—	0.56		OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	ND	—	0.49				
1,2,3,7,8,9-HxCDF	—	1.5	0.70	IJ	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	0.49		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.9	—	0.76	J	2,3,7,8-TCDD-37Cl4	0.20	63
1,2,3,6,7,8-HxCDD	ND	—	0.94				
1,2,3,7,8,9-HxCDD	ND	—	0.74				
Total HxCDD	1.9	—	0.74	J			
1,2,3,4,6,7,8-HpCDF	ND	—	0.70		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	1.00		Equivalence: 0.34 pg/L		
Total HpCDF	ND	—	0.70		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	—	1.4				
Total HpCDD	ND	—	1.4				
OCDF	ND	—	3.4				
OCDD	—	7.1	4.6	IJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

J = Estimated value
I = Isotope ratio out of specification

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-103173		
Filename	U221230A_01	Matrix	Water
Total Amount Extracted	1010 mL	Dilution	NA
ICAL ID	U221005	Extracted	12/22/2022 11:40
CCal Filename	U221229B_16	Analyzed	12/30/2022 09:45
Method Blank ID	BLANK-103172	Injected By	JRH

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	12	7.5	15.8	116
2,3,7,8-TCDD	10	13	6.7	15.8	128
1,2,3,7,8-PeCDF	50	54	40.0	67.0	107
2,3,4,7,8-PeCDF	50	57	34.0	80.0	113
1,2,3,7,8-PeCDD	50	54	35.0	71.0	107
1,2,3,4,7,8-HxCDF	50	55	36.0	67.0	110
1,2,3,6,7,8-HxCDF	50	58	42.0	65.0	116
2,3,4,6,7,8-HxCDF	50	58	35.0	78.0	115
1,2,3,7,8,9-HxCDF	50	59	39.0	65.0	117
1,2,3,4,7,8-HxCDD	50	56	35.0	82.0	113
1,2,3,6,7,8-HxCDD	50	51	38.0	67.0	101
1,2,3,7,8,9-HxCDD	50	48	32.0	81.0	96
1,2,3,4,6,7,8-HpCDF	50	51	41.0	61.0	102
1,2,3,4,7,8,9-HpCDF	50	49	39.0	69.0	98
1,2,3,4,6,7,8-HpCDD	50	46	35.0	70.0	91
OCDF	100	110	63.0	170.0	110
OCDD	100	91	78.0	144.0	91
2,3,7,8-TCDD-37Cl4	10	6.4	3.1	19.1	64
2,3,7,8-TCDF-13C	100	65	22.0	152.0	65
2,3,7,8-TCDD-13C	100	50	20.0	175.0	50
1,2,3,7,8-PeCDF-13C	100	68	21.0	192.0	68
2,3,4,7,8-PeCDF-13C	100	66	13.0	328.0	66
1,2,3,7,8-PeCDD-13C	100	62	21.0	227.0	62
1,2,3,4,7,8-HxCDF-13C	100	76	19.0	202.0	76
1,2,3,6,7,8-HxCDF-13C	100	70	21.0	159.0	70
2,3,4,6,7,8-HxCDF-13C	100	69	22.0	176.0	69
1,2,3,7,8,9-HxCDF-13C	100	58	17.0	205.0	58
1,2,3,4,7,8-HxCDD-13C	100	66	21.0	193.0	66
1,2,3,6,7,8-HxCDD-13C	100	71	25.0	163.0	71
1,2,3,4,6,7,8-HpCDF-13C	100	54	21.0	158.0	54
1,2,3,4,7,8,9-HpCDF-13C	100	48	20.0	186.0	48
1,2,3,4,6,7,8-HpCDD-13C	100	50	26.0	166.0	50
OCDD-13C	200	76	26.0	397.0	38

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Pace Analytical™

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-103174		
Filename	U221230A_02	Matrix	Water
Total Amount Extracted	1020 mL	Dilution	NA
ICAL ID	U221005	Extracted	12/22/2022 11:40
CCal Filename	U221229B_16	Analyzed	12/30/2022 10:29
Method Blank ID	BLANK-103172	Injected By	JRH

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	112
2,3,7,8-TCDD	10	12	6.7	15.8	121
1,2,3,7,8-PeCDF	50	51	40.0	67.0	101
2,3,4,7,8-PeCDF	50	54	34.0	80.0	108
1,2,3,7,8-PeCDD	50	51	35.0	71.0	102
1,2,3,4,7,8-HxCDF	50	51	36.0	67.0	102
1,2,3,6,7,8-HxCDF	50	53	42.0	65.0	106
2,3,4,6,7,8-HxCDF	50	52	35.0	78.0	105
1,2,3,7,8,9-HxCDF	50	53	39.0	65.0	105
1,2,3,4,7,8-HxCDD	50	53	35.0	82.0	106
1,2,3,6,7,8-HxCDD	50	51	38.0	67.0	101
1,2,3,7,8,9-HxCDD	50	34	32.0	81.0	69
1,2,3,4,6,7,8-HpCDF	50	46	41.0	61.0	93
1,2,3,4,7,8,9-HpCDF	50	44	39.0	69.0	89
1,2,3,4,6,7,8-HpCDD	50	40	35.0	70.0	80
OCDF	100	100	63.0	170.0	104
OCDD	100	82	78.0	144.0	82
2,3,7,8-TCDD-37Cl4	10	5.7	3.1	19.1	57
2,3,7,8-TCDF-13C	100	62	22.0	152.0	62
2,3,7,8-TCDD-13C	100	46	20.0	175.0	46
1,2,3,7,8-PeCDF-13C	100	68	21.0	192.0	68
2,3,4,7,8-PeCDF-13C	100	68	13.0	328.0	68
1,2,3,7,8-PeCDD-13C	100	60	21.0	227.0	60
1,2,3,4,7,8-HxCDF-13C	100	110	19.0	202.0	108
1,2,3,6,7,8-HxCDF-13C	100	90	21.0	159.0	90
2,3,4,6,7,8-HxCDF-13C	100	90	22.0	176.0	90
1,2,3,7,8,9-HxCDF-13C	100	55	17.0	205.0	55
1,2,3,4,7,8-HxCDD-13C	100	90	21.0	193.0	90
1,2,3,6,7,8-HxCDD-13C	100	95	25.0	163.0	95
1,2,3,4,6,7,8-HpCDF-13C	100	75	21.0	158.0	75
1,2,3,4,7,8,9-HpCDF-13C	100	51	20.0	186.0	51
1,2,3,4,6,7,8-HpCDD-13C	100	64	26.0	166.0	64
OCDD-13C	200	88	26.0	397.0	44

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	Con-Test Laboratories		
Spike 1 ID	LCS-103173	Spike 2 ID	LCSD-103174
Spike 1 Filename	U221230A_01	Spike 2 Filename	U221230A_02

Compound	Spike 1 %REC	Spike 2 %REC	%RPD	
2,3,7,8-TCDF	116	112	3.5	
2,3,7,8-TCDD	128	121	5.6	
1,2,3,7,8-PeCDF	107	101	5.8	
2,3,4,7,8-PeCDF	113	108	4.5	
1,2,3,7,8-PeCDD	107	102	4.8	
1,2,3,4,7,8-HxCDF	110	102	7.5	
1,2,3,6,7,8-HxCDF	116	106	9.0	
2,3,4,6,7,8-HxCDF	115	105	9.1	
1,2,3,7,8,9-HxCDF	117	105	10.8	
1,2,3,4,7,8-HxCDD	113	106	6.4	
1,2,3,6,7,8-HxCDD	101	101	0.0	
1,2,3,7,8,9-HxCDD	96	69	32.7	*
1,2,3,4,6,7,8-HpCDF	102	93	9.2	
1,2,3,4,7,8,9-HpCDF	98	89	9.6	
1,2,3,4,6,7,8-HpCDD	91	80	12.9	
OCDF	110	104	5.6	
OCDD	91	82	10.4	

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value
* = RPD outside target range

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May 8, 2023

Rebecca Treat
Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602

Project Location: Thetford, VT
Client Job Number:
Project Number: 20-096
Laboratory Work Order Number: 23D3527

Enclosed are results of analyses for samples as received by the laboratory on April 28, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

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

Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 5/8/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23D3527

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
FRB-042523	23D3527-01	Field Blank		EPA 537.1	
EB-042523	23D3527-02	Equipment Blank Water		EPA 537.1	
MW-101D	23D3527-03	Ground Water		EPA 537.1	
MW-101D-FD	23D3527-04	Ground Water		EPA 537.1	
BR-3	23D3527-05	Ground Water		EPA 537.1	
FORMER SUPPLY WELL	23D3527-06	Ground Water		EPA 537.1	
TRIP BLANK	23D3527-07	Trip Blank Water		EPA 537.1	

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CASE NARRATIVE SUMMARY

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

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

Lisa A. Worthington
Technical Representative

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3527

Date Received: 4/28/2023

Field Sample #: FRB-042523 | Sampled: 4/25/2023 10:55

Sample ID: 23D3527-01

Sample Matrix: Field Blank

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 13:58	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	100	70-130		5/5/23 13:58
M3HFPO-DA	98.3	70-130		5/5/23 13:58
13C-PFDA	102	70-130		5/5/23 13:58
D5-NEtFOSAA	91.2	70-130		5/5/23 13:58

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3527

Date Received: 4/28/2023

Field Sample #: EB-042523 | Sampled: 4/25/2023 10:57

Sample ID: 23D3527-02

Sample Matrix: Equipment Blank Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorohexanoic acid (PFHxA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluoroheptanoic acid (PFHpA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorooctanoic acid (PFOA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorononanoic acid (PFNA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorodecanoic acid (PFDA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
N-EtFOSAA (NEtFOSAA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluoroundecanoic acid (PFUnA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
N-MeFOSAA (NMeFOSAA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorododecanoic acid (PFDoA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Perfluorotetradecanoic acid (PFTA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
11Cl-PF3OUdS (F53B Major)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
9Cl-PF3ONS (F53B Minor)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.1	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:05	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	97.4	70-130		5/5/23 14:05
M3HFPO-DA	100	70-130		5/5/23 14:05
13C-PFDA	110	70-130		5/5/23 14:05
D5-NEtFOSAA	114	70-130		5/5/23 14:05

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3527

Date Received: 4/28/2023

Field Sample #: MW-101D | Sampled: 4/25/2023 12:30

Sample ID: 23D3527-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorohexanoic acid (PFHxA)	4.8	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorohexanesulfonic acid (PFHxS)	4.5	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluoroheptanoic acid (PFHpA)	4.9	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorooctanoic acid (PFOA)	10	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:12	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	82.6	70-130		5/5/23 14:12
M3HFPO-DA	78.4	70-130		5/5/23 14:12
13C-PFDA	93.8	70-130		5/5/23 14:12
D5-NEtFOSAA	78.9	70-130		5/5/23 14:12

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3527

Date Received: 4/28/2023

Field Sample #: MW-101D-FD | Sampled: 4/25/2023 12:30

Sample ID: 23D3527-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorohexanoic acid (PFHxA)	4.3	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorohexanesulfonic acid (PFHxS)	4.3	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluoroheptanoic acid (PFHpA)	6.0	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorooctanoic acid (PFOA)	9.7	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:19	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	79.5	70-130		5/5/23 14:19
M3HFPO-DA	76.9	70-130		5/5/23 14:19
13C-PFDA	89.2	70-130		5/5/23 14:19
D5-NEtFOSAA	77.0	70-130		5/5/23 14:19

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3527

Date Received: 4/28/2023

Field Sample #: BR-3 | Sampled: 4/25/2023 12:25

Sample ID: 23D3527-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorooctanoic acid (PFOA)	5.6	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:26	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	90.1	70-130		5/5/23 14:26
M3HFPO-DA	90.1	70-130		5/5/23 14:26
13C-PFDA	90.4	70-130		5/5/23 14:26
D5-NEtFOSAA	79.5	70-130		5/5/23 14:26

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3527

Date Received: 4/28/2023

Field Sample #: FORMER SUPPLY WELL | Sampled: 4/25/2023 14:30

Sample ID: 23D3527-06

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:33	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	84.3	70-130		5/5/23 14:33
M3HFPO-DA	87.4	70-130		5/5/23 14:33
13C-PFDA	90.3	70-130		5/5/23 14:33
D5-NEtFOSAA	83.1	70-130		5/5/23 14:33

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3527

Date Received: 4/28/2023

Field Sample #: TRIP BLANK | Sampled: 4/25/2023 12:00

Sample ID: 23D3527-07

Sample Matrix: Trip Blank Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		EPA 537.1	5/3/23	5/5/23 14:40	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	86.6	70-130		5/5/23 14:40
M3HFPO-DA	88.1	70-130		5/5/23 14:40
13C-PFDA	93.3	70-130		5/5/23 14:40
D5-NEtFOSAA	87.3	70-130		5/5/23 14:40

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Sample Extraction Data

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23D3527-01 [FRB-042523]	B339142	253	1.00	05/03/23
23D3527-02 [EB-042523]	B339142	234	1.00	05/03/23
23D3527-03 [MW-101D]	B339142	245	1.00	05/03/23
23D3527-04 [MW-101D-FD]	B339142	247	1.00	05/03/23
23D3527-05 [BR-3]	B339142	270	1.00	05/03/23
23D3527-06 [FORMER SUPPLY WELL]	B339142	254	1.00	05/03/23
23D3527-07 [TRIP BLANK]	B339142	262	1.00	05/03/23

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B339142 - EPA 537.1										
Blank (B339142-BLK1)				Prepared: 05/03/23 Analyzed: 05/05/23						
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L							
Surrogate: 13C-PFHxA	*33.6*		ng/L	38.6		87.2	70-130			
Surrogate: M3HFPO-DA	*35.0*		ng/L	38.6		90.8	70-130			
Surrogate: 13C-PFDA	*38.0*		ng/L	38.6		98.5	70-130			
Surrogate: D5-NEtFOSAA	*147*		ng/L	154		95.4	70-130			
LCS (B339142-BS1)				Prepared: 05/03/23 Analyzed: 05/05/23						
Perfluorobutanesulfonic acid (PFBS)	1.41	1.9	ng/L	1.70		83.1	50-150			
Perfluorohexanoic acid (PFHxA)	1.57	1.9	ng/L	1.91		82.0	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.55	1.9	ng/L	1.75		88.8	50-150			
Perfluoroheptanoic acid (PFHpA)	1.47	1.9	ng/L	1.91		76.7	50-150			
Perfluorooctanoic acid (PFOA)	1.51	1.9	ng/L	1.91		79.1	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.90	1.9	ng/L	1.78		107	50-150			
Perfluorononanoic acid (PFNA)	2.08	1.9	ng/L	1.91		109	50-150			
Perfluorodecanoic acid (PFDA)	1.99	1.9	ng/L	1.91		104	50-150			
N-EtFOSAA (NEtFOSAA)	1.66	1.9	ng/L	1.91		86.8	50-150			
Perfluoroundecanoic acid (PFUnA)	1.59	1.9	ng/L	1.91		83.3	50-150			
N-MeFOSAA (NMeFOSAA)	1.85	1.9	ng/L	1.91		96.5	50-150			
Perfluorododecanoic acid (PFDoA)	2.04	1.9	ng/L	1.91		107	50-150			
Perfluorotridecanoic acid (PFTrDA)	1.53	1.9	ng/L	1.91		79.7	50-150			
Perfluorotetradecanoic acid (PFTA)	1.87	1.9	ng/L	1.91		97.7	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.64	1.9	ng/L	1.91		85.6	50-150			
11Cl-PF3OUdS (F53B Major)	1.51	1.9	ng/L	1.81		83.8	50-150			
9Cl-PF3ONS (F53B Minor)	1.61	1.9	ng/L	1.79		90.1	50-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.59	1.9	ng/L	1.81		87.7	50-150			
Surrogate: 13C-PFHxA	*32.9*		ng/L	38.3		85.8	70-130			
Surrogate: M3HFPO-DA	*33.0*		ng/L	38.3		86.2	70-130			
Surrogate: 13C-PFDA	*39.5*		ng/L	38.3		103	70-130			
Surrogate: D5-NEtFOSAA	*141*		ng/L	153		91.8	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B339142 - EPA 537.1										
LCS Dup (B339142-BSD1)				Prepared: 05/03/23 Analyzed: 05/05/23						
Perfluorobutanesulfonic acid (PFBS)	1.52	2.0	ng/L	1.74		87.7	50-150	7.58	50	
Perfluorohexanoic acid (PFHxA)	1.66	2.0	ng/L	1.96		85.0	50-150	5.69	50	
Perfluorohexanesulfonic acid (PFHxS)	1.68	2.0	ng/L	1.79		94.0	50-150	7.86	50	
Perfluoroheptanoic acid (PFHpA)	1.65	2.0	ng/L	1.96		84.1	50-150	11.4	50	
Perfluorooctanoic acid (PFOA)	1.76	2.0	ng/L	1.96		90.2	50-150	15.3	50	
Perfluorooctanesulfonic acid (PFOS)	1.71	2.0	ng/L	1.82		94.2	50-150	10.5	50	
Perfluorononanoic acid (PFNA)	1.75	2.0	ng/L	1.96		89.3	50-150	17.3	50	
Perfluorodecanoic acid (PFDA)	1.93	2.0	ng/L	1.96		98.5	50-150	3.28	50	
N-EtFOSAA (NEtFOSAA)	1.56	2.0	ng/L	1.96		79.8	50-150	6.18	50	
Perfluoroundecanoic acid (PFUnA)	1.50	2.0	ng/L	1.96		76.7	50-150	6.00	50	
N-MeFOSAA (NMeFOSAA)	1.56	2.0	ng/L	1.96		79.8	50-150	16.7	50	
Perfluorododecanoic acid (PFDoA)	1.64	2.0	ng/L	1.96		84.0	50-150	21.6	50	
Perfluorotridecanoic acid (PFTrDA)	1.53	2.0	ng/L	1.96		78.4	50-150	0.515	50	
Perfluorotetradecanoic acid (PFTA)	1.55	2.0	ng/L	1.96		78.9	50-150	19.1	50	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.04	2.0	ng/L	1.96		104	50-150	21.9	50	
11Cl-PF3OUdS (F53B Major)	1.27	2.0	ng/L	1.85		68.7	50-150	17.7	50	
9Cl-PF3ONS (F53B Minor)	1.60	2.0	ng/L	1.83		87.6	50-150	0.628	50	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.77	2.0	ng/L	1.85		95.9	50-150	11.1	50	
Surrogate: 13C-PFHxA	*34.5*		ng/L	39.1		88.1	70-130			
Surrogate: M3HFPO-DA	*35.1*		ng/L	39.1		89.6	70-130			
Surrogate: 13C-PFDA	*35.6*		ng/L	39.1		91.1	70-130			
Surrogate: D5-NEtFOSAA	*133*		ng/L	157		84.7	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 537.1 in Drinking Water	
Perfluorobutanesulfonic acid (PFBS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorohexanoic acid (PFHxA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorohexanesulfonic acid (PFHxS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluoroheptanoic acid (PFHpA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorononanoic acid (PFNA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorodecanoic acid (PFDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
N-EtFOSAA (NEtFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluoroundecanoic acid (PFUnA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
N-MeFOSAA (NMeFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorododecanoic acid (PFDoA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorotridecanoic acid (PFTrDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorotetradecanoic acid (PFTA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
11Cl-PF3OUdS (F53B Major)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
9Cl-PF3ONS (F53B Minor)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH

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

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2024
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	06/30/2023
OH	Ohio Environmental Protection Agency	87781	04/1/2024

23D3527

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Stone Environmental
Address: 535 Stone Cutters Way, Montpelier VT
Phone:
Project Name: Thetford Landfill
Project Location: Thetford VT
Project Number: 20-0916
Project Manager: R. Treat
Pace Quote Name/Number:
Invoice Recipient: Stone Accounting/PACE ANALYTICAL
Sampled By: LBR

Requested Turnaround Time
7-Day (1) JGW 4/27/23 - Standard TAT ☒ | 10-Day ☐
PFAS 10-Day (std) ☒ | Due Date: Standard TAT

Rush-Approval Required
1-Day ☐ | 3-Day ☐
2-Day ☐ | 4-Day ☐

Data Delivery
Format: PDF ☒ | EXCEL ☐
Other: Equis EDP
CLP Like Data Pkg Required: ☐
Email To: rtreat@stone-environ
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Dioxins / Furans	PFAS 537.1	1,4-Dioxane
	BR-1	4/25/23	1007	G	GW			2				X		
1	FRB-042523		1055	G					1				X	
2	ER-042523		1057	G					2				X	
3	MW-101D		1230	G				4	2			X	X	X
4	MW-101D-FD		1230	G				4	2			X	X	X
	BR-2		1402	G				2				X		
	Lieban Well		1602	G	(2) DW			2				X		
	BR-202	4/25/23	1105	G	GW			2				X		
	BR-201		1305	G				2				X		
	MW-2		1435	G				2				X		

Relinquished by: (signature) Joanna Wright — Date/Time: 4/27/23 10:20
Received by: (signature) RJG-VDS — Date/Time: 4-28-23
Relinquished by: (signature) RJG-VDS — Date/Time: 4-28-23
Received by: (signature) Sam Sakin — Date/Time: 4/28/23 13:00
Relinquished by: (signature) Zoot Rate 4.2, 2.5, 3.8, 2.8 — Date/Time: 4/28/23 1645
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VT DEC

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity
Government ☐ | Municipality ☐ | MWRA ☐ | WRTA ☐
Federal ☐ | 21 J ☐ | School ☐
City ☐ | Brownfield ☐ | MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) Trizma

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. Th Chain of Custody is a legal document that must be complete and accurate and is used to determine wh analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pa Analytical values your partnership on each project and will try to assist with missing information, but w not be held accountable.

(1) JGW 4/27/23 - Standard TAT
(2) JGW 4/27/23 - DW

KAF

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23D3527

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name:	Stone Environmental
Address:	535 Stone Cutters Way, Montpelier
Phone:	
Project Name:	Thetford Landfill
Project Location:	Thetford VT
Project Number:	210-096
Project Manager:	Rebecca Treat
Pace Quote Name/Number:	
Invoice Recipient:	Stone Accounting/PACE
Sampled By:	JGW, LBR

Requested Turnaround Time
7-Day ① [X] 10-Day [ ]
PFAS 10-Day (std) [X] Due Date: Standard TAT

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [ ]
Other: Equis EDD
CLP Like Data Pkg Required: [ ]
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET [ ]
NON SOXHLET [ ]

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Dioxins/Furans	1,4-Dioxane	PFAS 537.1
	PMCWS	4/25/23	1525	G	②DW GW			2				X		
	BR-4	4/26/23	1050	G	GW			2				X		
5	BR-3		1225	G	GW			4	2			X	X	X
6	Former Supply Well		1430	G	GW			4	2			X	X	X
7	TRIP BLANK	↓	1200	G					1					X

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) Trizma

Relinquished by: (signature)	Date/Time:
Joanna Wright	4/27/23 10:20
Received by: (signature)	Date/Time:
RJT VDS	4-28-23
Relinquished by: (signature)	Date/Time:
RJT VDS	4-28-23
Received by: (signature)	Date/Time:
Sam Sabin	4/28/23 13:00
Relinquished by: (signature) 3.8.2.8	Date/Time:
Demirkh 42.25	4/28/23 1645
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VT DEC

Special Requirements
MA MCP Required [ ]
MCP Certification Form Required
CT RCP Required [ ]
RCP Certification Form Required
MA State DW Required [ ]
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity
Government [ ] Municipality [ ] MWRA [ ] WRTA [ ]
Federal [ ] 21 J [ ] School [ ]
City [ ] Brownfield [ ] MBTA [ ]

Other
Chromatogram [ ]
AIHA-LAP,LLC [ ]

Comments:
JGW 4/27/23 - Standard TAT
JGW 4/27/23 - DW

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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F:413-525-6405
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Log In Back-Sheet

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

Pace PEOPLE ADVANCING SCIENC

Client Stone

Project Thetford Landfill

MCP/RCP Required No

Deliverable Package Req. VT DEC

Location Thetford, VT

PWSID# (When Applicable) NA

Arrival Method:

Courier ☑ Fed Ex ☐ Walk In ☐ Other ☐

Received By / Date / Time ZR/DWW 4/28/23 1645

Back-Sheet By / Date / Time dk 4/28/23 2215

Temperature Method Gun # 5

Temp ☑ < 6° C Actual Temperature 4.2, 2.5, 3.8, 1.8

Rush Samples: Yes / (No) Notify

Short Hold: Yes / (No) Notify

	True	False
Received on Ice	☑	☐
Received in Cooler	☑	☐
Custody Seal: DATE TIME	☐	☑
COC Relinquished	☑	☐
COC/Samples Labels Agree	☑	☐
All Samples in Good Condition	☑	☐
Samples Received within Holding Time	☑	☐
Is there enough Volume	☑	☐
Proper Media/Container Used	☑	☐
Splitting Samples Required	☐	☑
MS/MSD	☐	☑
Trip Blanks	☐	☑
Lab to Filters	☐	☑
COC Legible	☑	☐

COC Included: (Check all included)

Client ☑ Analysis ☑ Sampler Name ☑

Project ☑ IDs ☑ Collection Date/Time ☑

All Samples Proper pH: (N/A) ☐ ☐

Notes regarding Samples/COC outside of SOP:

Container (Circle when applicable)	UnP	HCl	HNO3	H2SO4	NaOH	Trizma	NaS2O3	Other Preservative
1L Amber Plastic								
500 mL Amber Plastic								
250 mL Amber (Plastic)	1					11		
Other Amber Clear Plastic								
16oz Amber Clear								
8oz Amber Clear								
4oz Amber Clear								
2oz Amber Clear								
Col/Bacteria								
Flashpoint								
Plastic Bag								
SOC Kit								
Perchlorate								
Encore								
Frozen								

	Proper Headspace	UnP	HCl	MeOH	Bisulfate	DI	Thiosulfate	Sulfuric	Other
Vials									

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

May 30, 2023

Rebecca Treat
Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602

Project Location: Thetford, VT
Client Job Number:
Project Number: 20-096
Laboratory Work Order Number: 23D3524

Enclosed are results of analyses for samples as received by the laboratory on April 28, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

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

Stone Environmental
535 Stone Cutters Ways
Montpelier, VT 05602
ATTN: Rebecca Treat

REPORT DATE: 5/30/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 20-096

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23D3524

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

PROJECT LOCATION: Thetford, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BR-1	23D3524-01	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
MW-101D	23D3524-02	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
				SW-846 8270E	
MW-101D-FD	23D3524-03	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
				SW-846 8270E	
BR-2	23D3524-04	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
LIEBON WELL	23D3524-05	Drinking Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
BR-202	23D3524-06	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
BR-201	23D3524-07	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
MW-2	23D3524-08	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
PMCWS	23D3524-09	Drinking Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
BR-4	23D3524-10	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
BR-3	23D3524-11	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
				SW-846 8270E	
FORMER SUPPLY WELL	23D3524-12	Ground Water		8290	CT PH-0197/NY11742
				EPA 1613B	CT PH-0197/NY11742
				SW-846 8270E	

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CASE NARRATIVE SUMMARY

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

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

Lisa A. Worthington
Technical Representative

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: BR-1 | Sampled: 4/25/2023 10:07

Sample ID: 23D3524-01

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: MW-101D | Sampled: 4/25/2023 12:30

Sample ID: 23D3524-02

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	2.3	0.23	µg/L	1		SW-846 8270E	5/1/23	5/9/23 19:06	SPF

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	29.3	15-110				5/9/23 19:06	

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: MW-101D | Sampled: 4/25/2023 12:30

Sample ID: 23D3524-02

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: MW-101D-FD | Sampled: 4/25/2023 12:30

Sample ID: 23D3524-03

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	2.3	0.23	µg/L	1		SW-846 8270E	5/1/23	5/3/23 20:31	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	25.2	15-110				5/3/23 20:31	

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: MW-101D-FD | Sampled: 4/25/2023 12:30

Sample ID: 23D3524-03

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: BR-2 | Sampled: 4/25/2023 14:02

Sample ID: 23D3524-04

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: LIEBON WELL | Sampled: 4/25/2023 16:02

Sample ID: 23D3524-05

Sample Matrix: Drinking Water

Miscellaneous Organic Analyses

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attached			pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: BR-202 | Sampled: 4/25/2023 11:05

Sample ID: 23D3524-06

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attached		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: BR-201 | Sampled: 4/25/2023 13:05

Sample ID: 23D3524-07

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: MW-2 | Sampled: 4/25/2023 14:35

Sample ID: 23D3524-08

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: PMCWS | Sampled: 4/25/2023 15:25

Sample ID: 23D3524-09

Sample Matrix: Drinking Water

Miscellaneous Organic Analyses

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attached			pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: BR-4 | Sampled: 4/26/2023 10:50

Sample ID: 23D3524-10

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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

Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: BR-3 | Sampled: 4/26/2023 12:25

Sample ID: 23D3524-11

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	0.63	0.20	µg/L	1		SW-846 8270E	5/1/23	5/3/23 20:50	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	24.4	15-110					5/3/23 20:50

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: BR-3 | Sampled: 4/26/2023 12:25

Sample ID: 23D3524-11

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: FORMER SUPPLY WELL | Sampled: 4/26/2023 14:30

Sample ID: 23D3524-12

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.20	µg/L	1		SW-846 8270E	5/1/23	5/3/23 21:11	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,4-Dioxane-d8	25.5	15-110					5/3/23 21:11

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Project Location: Thetford, VT | Sample Description: | Work Order: 23D3524

Date Received: 4/28/2023

Field Sample #: FORMER SUPPLY WELL | Sampled: 4/26/2023 14:30

Sample ID: 23D3524-12

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
See Attached Sub Contract Report	See Attache		pg/L	1		8290		5/24/23 0:00	PMN

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Sample Extraction Data

Prep Method:SW-846 3510C **Analytical Method:SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23D3524-02 [MW-101D]	B338842	865	1.00	05/01/23
23D3524-03 [MW-101D-FD]	B338842	855	1.00	05/01/23
23D3524-11 [BR-3]	B338842	1020	1.00	05/01/23
23D3524-12 [FORMER SUPPLY WELL]	B338842	985	1.00	05/01/23

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QUALITY CONTROL

1,4-Dioxane by isotope dilution GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B338842 - SW-846 3510C										
Blank (B338842-BLK1)				Prepared: 05/01/23 Analyzed: 05/03/23						
1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	*2.50*		µg/L	10.0		25.0	15-110			
LCS (B338842-BS1)				Prepared: 05/01/23 Analyzed: 05/03/23						
1,4-Dioxane	10.8	0.20	µg/L	10.0		108	40-140			
Surrogate: 1,4-Dioxane-d8	*2.64*		µg/L	10.0		26.4	15-110			
LCS Dup (B338842-BSD1)				Prepared: 05/01/23 Analyzed: 05/03/23						
1,4-Dioxane	11.9	0.20	µg/L	10.0		119	40-140	9.90	30	
Surrogate: 1,4-Dioxane-d8	*2.27*		µg/L	10.0		22.7	15-110			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
1,4-Dioxane	NY,NH
SW-846 8270E in Water	
1,4-Dioxane	NY,NH

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

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024

23D3524

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Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Stone Environmental
Address: 535 Stone Cutters Way, Montpelier VT
Phone:
Project Name: Thetford Landfill
Project Location: Thetford VT
Project Number: 20-096
Project Manager: R. Treat
Pace Quote Name/Number:
Invoice Recipient: Stone Accounting/PACE ANALYTICAL
Sampled By: LBR

Requested Turnaround Time
7-Day (1) OK ☒ | 10-Day ☐
PFAS 10-Day (std) ☒ | Due Date: Standard TAT

Rush-Approval Required
1-Day ☐ | 3-Day ☐
2-Day ☐ | 4-Day ☐

Data Delivery
Format: PDF ☒ | EXCEL ☐
Other: Equis EDD
CLP Like Data Pkg Required: ☐
Email To: rtreat@stone-environ
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Dioxins / Furans	PFAS 537.1	1,4-Dioxane
1	BR-1	4/25/23	1007	G	GW			2				X		
	FRB-042523		1055	G					1				X	
	ER-042523		1057	G					2				X	
2	MW-101D		1230	G				4	2			X	X	X
3	MW-101D-FD		1230	G				4	2			X	X	X
4	BR-2		1402	G				2				X		
5	Liedon Well		1602	G	(2) DW			2				X		
6	BR-202	4/25/23	1105	G	GW			2				X		
7	BR-201		1305	G				2				X		
8	MW-2		1435	G				2				X		

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) Trizma

Relinquished by: (signature)	Date/Time:
Jamma Wright	4/27/23 10:20
Received by: (signature)	Date/Time:
RJP VDS	4-28-23
Relinquished by: (signature)	Date/Time:
RJP VDS	4-28-23
Received by: (signature)	Date/Time:
Sam Sakin	4/28/23 13:00
Relinquished by: (signature)	Date/Time:
Zach Rose 4.2,2.5,3.8,2.8	4/28/23 1645
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VT DEC

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

ACLASS and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ | Municipality ☐ | MWRA ☐ | WRTA ☐
Federal ☐ | 21 J ☐ | School ☐
City ☐ | Brownfield ☐ | MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

(1) JGW 4/27/23 - Standard TAT
(2) JGW 4/27/23 - DW

KAF

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Access COC's and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name:	Stone Environmental
Address:	535 Stone Cutters Way, Montpelier
Phone:	
Project Name:	Thetford Landfill
Project Location:	Thetford VT
Project Number:	213-096
Project Manager:	Rebecca Treat
Pace Quote Name/Number:	
Invoice Recipient:	Stone Accounting/PACE
Sampled By:	JGW, LBR

Requested Turnaround Time
7-Day ① ~~CAT~~ 10-Day ☐
PFAS 10-Day (std) ☒ Due Date: Standard TAT

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☐
Other: Equis EDD
CLP Like Data Pkg Required: ☐
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Dioxins/Furans	1,4-Dioxane	PFAS 537.1	
9	PMCWS	4/25/23	1525	G	②DW ~~GW~~			2				X			
10	BR-4	4/26/23	1050	G	GW			2				X			
11	BR-3	↓	1225	G	GW			4	2			X	X	X	
12	Former Supply Well		1430	G	GW			4	2			X	X	X	
	TRIP BLANK	↓	1200	G					1					X	

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
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H = HCL
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N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) Trizma

Relinquished by: (signature)	Date/Time:
Joanna Wright	4/27/23 10:20
Received by: (signature)	Date/Time:
RJ VDS	4-28-23
Relinquished by: (signature)	Date/Time:
RJ VDS	4-28-23
Received by: (signature)	Date/Time:
Sam Sabin	4/28/23 13:00
Relinquished by: (signature) 3.8.2.8	Date/Time:
Demitth 42,2.5	4/28/23 1645
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VT DEC

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP, LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

① JGW 4/27/23 - Standard TAT
② JGW 4/27/23 - DW

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Log In Back-Sheet

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

Pace
PEOPLE ADVANCING SCIENC

Client Stone
Project Thetford Landfill
MCP/RCP Required No
Deliverable Package Req. VT DEC
Location Thetford, VT
PWSID# (When Applicable) NA
Arrival Method:
Courier ☑ Fed Ex ☐ Walk In ☐ Other ☐
Received By / Date / Time ZR/DWW 4/28/23 1645
Back-Sheet By / Date / Time dc 4/28/23 2215
Temperature Method Gun # 5
Temp ☑ < 6° C Actual Temperature 4.2, 2.5, 3.8, 1.8
Rush Samples: Yes / (No) Notify
Short Hold: Yes / (No) Notify

Notes regarding Samples/COC outside of SOP:

	True	False
Received on Ice	☑	☐
Received in Cooler	☑	☐
Custody Seal: DATE TIME	☐	☑
COC Relinquished	☑	☐
COC/Samples Labels Agree	☑	☐
All Samples in Good Condition	☑	☐
Samples Received within Holding Time	☑	☐
Is there enough Volume	☑	☐
Proper Media/Container Used	☑	☐
Splitting Samples Required	☐	☑
MS/MSD	☐	☑
Trip Blanks	☐	☑
Lab to Filters	☐	☑
COC Legible	☑	☐

COC Included: (Check all included)
Client ☑ Analysis ☑ Sampler Name ☑
Project ☑ IDs ☑ Collection Date/Time ☑

All Samples Proper pH: (N/A) ☐ ☐

Container (Circle when applicable)	UnP	HCl	HNO3	H2SO4	NaOH	Trizma	NaS2O3	Other Preservative
1L (Amber) Plastic	52							
500 mL Amber Plastic								
250 mL Amber Plastic								
Other Amber Clear Plastic								
16oz Amber Clear								
8oz Amber Clear								
4oz Amber Clear								
2oz Amber Clear								
Col/Bacteria								
Flashpoint								
Plastic Bag								
SOC Kit								
Perchlorate								
Encore								
Frozen								

	Proper Headspace	UnP	HCl	MeOH	Bisulfate	DI	Thiosulfate	Sulfuric	Other
Vials									

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Kaitlyn Feliciano
Con-Test Laboratories

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 10651953
Sample Receipt Date: 05/04/2023
Client Project #: 23D3524
Client Sub PO #: N/A
State Cert #: VT-027053137

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Isaac Johnson, your Pace Project Manager.

This report has been reviewed by:

May 25, 2023

Isaac Johnson, Project Manager
(612) 607-1700
(612) 607-6444 (fax)
isaac.johnson@pacelabs.com

Report Prepared Date:
May 25, 2023

Report of Laboratory Analysis

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The results relate only to the samples included in this report.

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analyses performed on twelve samples submitted by a representative of Con-Test Laboratories. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. The reporting limits were statistically-derived method detection limits (MDLs) and were adjusted for sample extraction amount. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 46-120%. All of the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained. Concentrations below the calibration range were flagged "J" and should be regarded as estimates. In cases where the estimated detection limit (EDL) values were above the method detection limits (MDLs), the EDLs were provided and flagged "A".

A laboratory method blank was prepared and analyzed with each sample batch as part of our routine quality control procedures. The results show Blank-105999 to contain a trace level of 1,2,3,4,7,8-HxCDD. This level was below the calibration range of the method. Also, 1,2,3,4,7,8-HxCDD was not detected in the associated field samples.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 82-114% with relative percent differences of 0.0-10.1%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batches.

The responses obtained for one or more selected labeled congeners in calibration standard analyses L230524A_18, U230516A_08, and U230516C_17 were outside the target ranges. As specified in our procedures for this method, the averages of the daily response factors for these compounds were used in the calculations for the samples from these runshifts. The affected values were flagged "Y" on the results tables.

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Missouri	10100
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska-DW	MN00064	Nevada	MN00064
Alaska-UST	17-009	New Hampshire	2081
Arizona	AZ0014	New Jersey	MN002
Arkansas - WW	88-0680	New York	11647
Arkansas-DW	MN00064	North Carolina-	27700
California	2929	North Carolina-	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio-DW	41244
Florida	E87605	Ohio-VAP (170	CL101
Georgia	959	Ohio-VAP (180	CL110
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon-Primary	MN300001
Illinois	200011	Oregon-Second	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-D	382
Minnesota	027-053-137	West Virginia-D	9952C
Minnesota-Ag	via MN 027-053	Wisconsin	999407970
Minnesota-Petr	1240	Wyoming-UST	via A2LA 2926.
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
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Fax: 612.607.6444
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Appendix A

Sample Management

REPORT OF LABORATORY ANALYSIS

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WO# : 10651953

10651953

SUBCONTRACT CHAIN OF CUSTODY

Pace New England

23D3524

C071

SENDING LABORATORY:

Pace New England
39 Spruce Street
East Longmeadow, MA 01028
Phone: 413.525.2332
Fax: 413.525.6405
Project Manager: Kaitlyn A. Feliciano

RECEIVING LABORATORY:

Pace National - TN
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone :(615) 758-5858
Fax: -

L1611240

Analysis	Sample Name	Due	Expires	Comments
Sample ID: 23D3524-01	**BR-1**	**Water** **Sampled: 04/25/23 10:07**	**VT DEC**	-01 001
S-Dioxins/Furans		05/09/23 15:30	05/02/23 10:07	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-02	**MW-101D**	**Water** **Sampled: 04/25/23 12:30**	**VT DEC**	-02 002
S-Dioxins/Furans		05/09/23 15:30	05/02/23 12:30	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-03	**MW-101D-FD**	**Water** **Sampled: 04/25/23 12:30**	**VT DEC**	-03 003
S-Dioxins/Furans		05/09/23 15:30	05/02/23 12:30	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-04	**BR-2**	**Water** **Sampled: 04/25/23 14:02**	**VT DEC**	-04 004
S-Dioxins/Furans		05/09/23 15:30	05/02/23 14:02	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-05	**LIEBON WELL**	**Drinking Wate** **Sampled: 04/25/23 16:02**	**VT DEC**	-05 005
S-Dioxins/Furans		05/09/23 15:30	05/02/23 16:02	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-06	**BR-202**	**Water** **Sampled: 04/25/23 11:05**	**VT DEC**	-06 006
S-Dioxins/Furans		05/09/23 15:30	05/02/23 11:05	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			

Released By	5-1-23 17:00 Date	Received By	PACE	5.2.23 0900 Date
Released By	Date	Received By	Melissa PACE	5/4/23 8:50 Date

T: 1.6, 1.8, 0.2 °C

SUBCONTRACT CHAIN OF CUSTODY

Pace New England

23D3524 L1611226

Analysis	Sample Name	Due	Expires	Comments
Sample ID: 23D3524-07	**BR-201**	**Water** **Sampled:** **04/25/23 13:05**	**VT DEC**	-07 007
S-Dioxins/Furans		05/09/23 15:30	05/02/23 13:05	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-08	**MW-2**	**Water** **Sampled:** **04/25/23 14:35**	**VT DEC**	-08 008
S-Dioxins/Furans		05/09/23 15:30	05/02/23 14:35	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-09	**PMCWS**	**Drinking Wate** **Sampled:** **04/25/23 15:25**	**VT DEC**	-09 009
S-Dioxins/Furans		05/09/23 15:30	05/02/23 15:25	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-10	**BR-4**	**Water** **Sampled:** **04/26/23 10:50**	**VT DEC**	-10 010
S-Dioxins/Furans		05/09/23 15:30	05/03/23 10:50	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-11	**BR-3**	**Water** **Sampled:** **04/26/23 12:25**	**VT DEC**	-11 011
S-Dioxins/Furans		05/09/23 15:30	05/03/23 12:25	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			
Sample ID: 23D3524-12	**FORMER SUPPLY WELL**	**Water** **Sampled:** **04/26/23 14:30**	**VT DEC**	-12 012
S-Dioxins/Furans		05/09/23 15:30	05/03/23 14:30	
Containers Supplied:				
1 L amber (A)	1 L amber (B)			

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient Volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

Released By	Date	Received By	Date
	5-1-23 17:00	(7) PACE	5.2.23 0900
		PACE	5/4/23 8:50

T: 1.6, 1.8, 0.2 °C

Sample Condition Upon Receipt

Client Name: Pace National

Project #: **WO#: 10651953**

PM: IJJ **Due Date: 05/25/23**

CLIENT: CON-TEST

Courier: ☒ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: _____ ☒ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☒ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9(0727) ☐ 01339252/1710 **Type of Ice:** ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 1.6, 1.8, 0.2

Correction Factor: true **Cooler Temp Corrected w/temp blank:** 1.6, 1.8, 0.2

Average Corrected Temp (no temp blank only): _____ °C

☒ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☒ N/A, water sample/other: _____) **Date/Initials of Person Examining Contents:** IJJ 5/4/23

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☒ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	~~Yes~~	☐ No		1. MS 5/4/23
Chain of Custody Relinquished?	~~Yes~~	☐ No		2.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other _____
Rush Turn Around Time Requested?	☒ Yes	☐ No		6.
Sufficient Sample Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other	☒ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☒ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #** Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☒ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: [redacted] Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** 5/5/23

NOTE: Whenever there is a discrepancy affec[redacted]this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: BG2 **Line:** 2

Pace ANALYTICAL SERVICES	**DC#_Title: ENV-FRM-MIN4-0142 v02_Sample Condition Upon Receipt (SCUR) Exception Form**
	Effective Date: 09/22/2022

Workorder #: _____

No Temp Blank		
Read Temp	**Corrected Temp**	**Average temp**

PM Notified of Out of Temp Cooler? ☐ Yes ☐ No

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

Multiple Cooler Project? ☐ Yes ☐ No

If anything is OVER 6.0° C, you MUST document containers in this section HERE

Tracking Number	Temperature
6337 2247 0536	1.6
0525	1.8
0514	0.2

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples										
Sample ID	**Type Of Preserve**	**pH Upon Receipt**	**Date Adjusted**	**Time Adjusted**	**Amount Added (mL)**	**Lot # Added**	**pH After**	**In Compliance After Addition?**		**Initials**
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	

Comments:

_____

_____

_____

Qualtrax ID: 52763

23D3524

L1011220

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Access COCs and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name:	Stone Environmental
Address:	535 Stone Cutters Way, Montpelier VT
Phone:	
Project Name:	Landfill
Project Location:	Thetford VT
Project Number:	20-096
Project Manager:	R. Treat
Pace Quote Name/Number:	
Invoice Recipient:	Stone Accounting/PACE ANALYTICAL
Sampled By:	LBR

Requested Turnaround Time
7-Day ① ☒ — 10-Day ☐
PFAS 10-Day (std) ☒ — Due Date: Standard TAT

Pace Approval Required
1-Day ☐ — 3-Day ☐
2-Day ☐ — 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☐
Other: Equis EDD
CLP Like Data Pkg Required: ☐
Email To: rtreat@stone-env.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order	Client Sample ID/Description	Collection Date/Time	Matrix Code	Preservation Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Dioxins / Furans	PFAS 537.1	1,4-Dioxane	I	OE	J
1	BR-1	4/25/23 1007	G	GW		2				X					
	FRB-042523	1055	G				1				X				
	ER-042523	1057	G				2				X				
2	MW-101D	1230	G			4	2			X	X	X			
3	MW-101D-FD	1230	G			4	2			X	X	X			
4	BR-2	1408	G			2				X					
5	Licon Well	1602	G	② DW		2				X					
6	BR-202	4/25/23 1105	G	GW		2				X					
7	BR-201	1305	G			2				X					
8	MW-2	1435	G			2				X					

Preservation Code
Courier Use Only
Total Number Of:
VIALS ____
GLASS ____
PLASTIC ____
BACTERIA ____
ENCORE ____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Anatytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) inzma

Relinquished by: (signature)	Janessa Wright	Date/Time: 4/27/23 10:20
Received by: (signature)	RVA VDS	Date/Time: 4-28-23
Relinquished by: (signature)	VDS	Date/Time: 4-28-23
Received by: (signature)	San Salas	Date/Time: 4/28/23 13:00
Relinquished by: (signature)	Fed Ex 4.2,25,3828	Date/Time: 4/28/23 1645
Received by: (signature)		Date/Time:
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Other: VT DEC

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

① JGW 4/27/23 - Standard TAT
② JGW 4/27/23 - DW

KAF

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East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 5_07/13/2021

L1611226

Page 2 of 2

Company Name:	Stone Environmental
Address:	535 Stone Cutters Way, Montpelier
Phone:	
Project Name:	Thetford Landfill
Project Location:	Thetford VT
Project Number:	220-096
Project Manager:	Rebecca Trent
Pace Quote Name/Number:	
Invoice Recipient:	Stone Accounting/PACE
Sampled By:	JGW, LBR

Requested Turnaround Time

7-Day	① ~~TAT~~	10-Day	☐
PFAS 10-Day (std)	☒	Due Date:	5 Business TAT

Rush Approval Req.

1-Day	☐	3-Day	☐
2-Day	☐	4-Day	☐

Data Delivery

Format: PDF ☒ EXCEL ☐
Other: Equis EDD
CLP Like Data Pkg Required: ☐
Email To: rtrent@stone-env.com
Fax To #:

Dissolved Filter Samples

○ Field Filtered
○ Lab to Filter

Preserved Samples

○ Field Filtered
○ Lab to Filter

PCB ONLY

SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Analytical Work Order #	Client Sample ID	Collection Date	Collection Time	Grab / Composite	Matrix	Matrix Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Dioxins/Furans	1,4-Dioxane	PFAS 537.1								
9	PMCWS	4/25/23	1525	G	② DW GW			2				X										
10	BR-4	4/26/23	1050	G	GW			2				X										
11	BR-3	↓	1225	G	GW			4	8			X	X	X								
12	Farmer Supply Well		1430	G	GW			4	2			X	X	X								
	TRIP BLANK	↓	1200	G					1					X								

Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) Trizma

Relinquished by: (signature)	Joanna Wright	Date/Time: 4/27/23 10:20
Received by: (signature)	VDS	Date/Time: 4-28-23
Relinquished by: (signature)	VDS	Date/Time: 4-28-23
Received by: (signature)	Sam Sabin	Date/Time: 4/28/23 15:00
Relinquished by: (signature)	3.8.2-8 Demitlu 42,25	Date/Time: 4/28/23 1645
Received by: (signature)		Date/Time:
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Client Comments:

Detection Limit Requirements

Special Requirements

☐	MA MCP Required
☐	MCP Certification Form Required
☐	CT RCP Required
☐	RCP Certification Form Required
☐	MA State DW Required

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Other: VT NEC
PWSID #:

Project Entity

Government	☐	Municipality	☐	MWRA	☐
Federal	☐	21 J	☐	School	☐
City	☐	Brownfield	☐	MBTA	☐
				WRTA	☐

Other
☐ Chromatogram
☐ AIHA-LAP, LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

① JGW 4/27/23 - Standard TAT
② JGW 4/27/23 - DW

L1611226

Tracking Numbers	Temperature
7720 1088 8937	NSAT 3.6 +0 = 3.6
7720 1088 9212	NSAT 1.8 +0 = 1.8
7720 1088 9348	NSAT 4.2+0 = 4.2

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1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

H2 = Extracted outside of holding time

I = Isotope ratio out of specification

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Fax: 612.607.6444
www.pacelabs.com

Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-01		
Lab Sample ID	10651953001		
Filename	L230524A_02		
Injected By	AH5		
Total Amount Extracted	992 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 10:07
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 13:01

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.0	2,3,7,8-TCDF-13C	2.00	57
Total TCDF	ND	-----	2.0	2,3,7,8-TCDD-13C	2.00	55
				1,2,3,7,8-PeCDF-13C	2.00	63
2,3,7,8-TCDD	ND	-----	2.2	2,3,4,7,8-PeCDF-13C	2.00	62
Total TCDD	ND	-----	2.2	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	ND	-----	2.5	1,2,3,6,7,8-HxCDF-13C	2.00	64
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	61
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	59
				1,2,3,4,7,8-HxCDD-13C	2.00	61
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	52
				1,2,3,4,7,8,9-HpCDF-13C	2.00	46
1,2,3,4,7,8-HxCDF	ND	-----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	ND	-----	4.4	OCDD-13C	4.00	51 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.3			
1,2,3,7,8,9-HxCDF	ND	-----	4.6	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.3	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.6	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	ND	-----	4.5			
1,2,3,7,8,9-HxCDD	ND	-----	5.5			
Total HxCDD	ND	-----	3.6			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.3	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.3	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.3	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.3			
Total HpCDD	ND	-----	4.3			
OCDF	ND	-----	10			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-02		
Lab Sample ID	10651953002		
Filename	L230524A_03		
Injected By	AH5		
Total Amount Extracted	960 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 12:30
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 13:43

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.1	2,3,7,8-TCDF-13C	2.00	73
Total TCDF	ND	-----	2.1	2,3,7,8-TCDD-13C	2.00	72
				1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	-----	2.3	2,3,4,7,8-PeCDF-13C	2.00	80
Total TCDD	ND	-----	2.3	1,2,3,7,8-PeCDD-13C	2.00	90
				1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	-----	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	80
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	75
				1,2,3,4,7,8-HxCDD-13C	2.00	78
1,2,3,7,8-PeCDD	ND	-----	2.2	1,2,3,6,7,8-HxCDD-13C	2.00	81
Total PeCDD	ND	-----	2.2	1,2,3,4,6,7,8-HpCDF-13C	2.00	67
				1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	-----	5.2	1,2,3,4,6,7,8-HpCDD-13C	2.00	72
1,2,3,6,7,8-HxCDF	ND	-----	4.6	OCDD-13C	4.00	67 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.5			
1,2,3,7,8,9-HxCDF	ND	-----	4.8	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.5	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.7	2,3,7,8-TCDD-37Cl4	0.20	89
1,2,3,6,7,8-HxCDD	ND	-----	4.7			
1,2,3,7,8,9-HxCDD	ND	-----	5.7			
Total HxCDD	ND	-----	3.7			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.5	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.4	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.4	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.4			
Total HpCDD	ND	-----	4.4			
OCDF	ND	-----	11			
OCDD	ND	-----	12			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-03		
Lab Sample ID	10651953003		
Filename	L230524A_04		
Injected By	AH5		
Total Amount Extracted	991 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 12:30
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 14:26

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.0	2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	-----	2.0	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	93
2,3,7,8-TCDD	ND	-----	2.2	2,3,4,7,8-PeCDF-13C	2.00	92
Total TCDD	ND	-----	2.2	1,2,3,7,8-PeCDD-13C	2.00	101
				1,2,3,4,7,8-HxCDF-13C	2.00	87
1,2,3,7,8-PeCDF	ND	-----	2.5	1,2,3,6,7,8-HxCDF-13C	2.00	92
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	81
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	93
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	ND	-----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	ND	-----	4.4	OCDD-13C	4.00	67 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.3			
1,2,3,7,8,9-HxCDF	ND	-----	4.6	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.3	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.6	2,3,7,8-TCDD-37Cl4	0.20	93
1,2,3,6,7,8-HxCDD	ND	-----	4.5			
1,2,3,7,8,9-HxCDD	ND	-----	5.5			
Total HxCDD	ND	-----	3.6			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.3	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.3	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.3	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.3			
Total HpCDD	ND	-----	4.3			
OCDF	ND	-----	10			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-04		
Lab Sample ID	10651953004		
Filename	L230524A_05		
Injected By	AH5		
Total Amount Extracted	981 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 14:02
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 15:09

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	ND	-----	2.1		2,3,7,8-TCDF-13C	2.00	85	
Total TCDF	ND	-----	2.1		2,3,7,8-TCDD-13C	2.00	81	
					1,2,3,7,8-PeCDF-13C	2.00	93	
2,3,7,8-TCDD	ND	-----	2.2		2,3,4,7,8-PeCDF-13C	2.00	91	
Total TCDD	ND	-----	2.2		1,2,3,7,8-PeCDD-13C	2.00	103	
					1,2,3,4,7,8-HxCDF-13C	2.00	90	
1,2,3,7,8-PeCDF	ND	-----	2.5		1,2,3,6,7,8-HxCDF-13C	2.00	98	
2,3,4,7,8-PeCDF	2.3	-----	1.9	J	2,3,4,6,7,8-HxCDF-13C	2.00	91	
Total PeCDF	2.3	-----	1.9	J	1,2,3,7,8,9-HxCDF-13C	2.00	83	
					1,2,3,4,7,8-HxCDD-13C	2.00	83	
1,2,3,7,8-PeCDD	ND	-----	2.1		1,2,3,6,7,8-HxCDD-13C	2.00	99	
Total PeCDD	ND	-----	2.1		1,2,3,4,6,7,8-HpCDF-13C	2.00	74	
					1,2,3,4,7,8,9-HpCDF-13C	2.00	65	
1,2,3,4,7,8-HxCDF	ND	-----	5.1		1,2,3,4,6,7,8-HpCDD-13C	2.00	79	
1,2,3,6,7,8-HxCDF	ND	-----	4.5		OCDD-13C	4.00	67	Y
2,3,4,6,7,8-HxCDF	ND	-----	4.4					
1,2,3,7,8,9-HxCDF	ND	-----	4.7		1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	ND	-----	4.4		1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	3.7		2,3,7,8-TCDD-37Cl4	0.20	95	
1,2,3,6,7,8-HxCDD	ND	-----	4.6					
1,2,3,7,8,9-HxCDD	ND	-----	5.5					
Total HxCDD	ND	-----	3.7					
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4		Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	4.8	A	Equivalence: 0.68 pg/L			
Total HpCDF	ND	-----	4.4		(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	ND	-----	4.4					
Total HpCDD	ND	-----	4.4					
OCDF	ND	-----	10					
OCDD	ND	-----	11					

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
Y = Calculated using average of daily RFs

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-05		
Lab Sample ID	10651953005		
Filename	L230524A_06		
Injected By	AH5		
Total Amount Extracted	967 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 16:02
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 15:52

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.1	2,3,7,8-TCDF-13C	2.00	95
Total TCDF	ND	-----	2.1	2,3,7,8-TCDD-13C	2.00	91
				1,2,3,7,8-PeCDF-13C	2.00	101
2,3,7,8-TCDD	ND	-----	2.3	2,3,4,7,8-PeCDF-13C	2.00	103
Total TCDD	ND	-----	2.3	1,2,3,7,8-PeCDD-13C	2.00	114
				1,2,3,4,7,8-HxCDF-13C	2.00	102
1,2,3,7,8-PeCDF	ND	-----	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	106
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	100
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	90
				1,2,3,4,7,8-HxCDD-13C	2.00	95
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	104
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	-----	5.2	1,2,3,4,6,7,8-HpCDD-13C	2.00	83
1,2,3,6,7,8-HxCDF	ND	-----	4.5	OCDD-13C	4.00	70 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.4			
1,2,3,7,8,9-HxCDF	ND	-----	4.8	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.4	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.7	2,3,7,8-TCDD-37Cl4	0.20	98
1,2,3,6,7,8-HxCDD	ND	-----	4.6			
1,2,3,7,8,9-HxCDD	ND	-----	5.6			
Total HxCDD	ND	-----	3.7			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.4	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.4	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.4			
Total HpCDD	ND	-----	4.4			
OCDF	ND	-----	11			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-06		
Lab Sample ID	10651953006		
Filename	L230524A_07		
Injected By	AH5		
Total Amount Extracted	980 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 11:05
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 16:35

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**MDL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDF	ND	-----	2.1	2,3,7,8-TCDF-13C	2.00	81
Total TCDF	ND	-----	2.1	2,3,7,8-TCDD-13C	2.00	72
				1,2,3,7,8-PeCDF-13C	2.00	90
2,3,7,8-TCDD	ND	-----	2.2	2,3,4,7,8-PeCDF-13C	2.00	90
Total TCDD	ND	-----	2.2	1,2,3,7,8-PeCDD-13C	2.00	99
				1,2,3,4,7,8-HxCDF-13C	2.00	92
1,2,3,7,8-PeCDF	ND	-----	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	94
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	76
				1,2,3,4,7,8-HxCDD-13C	2.00	84
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	94
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	75
				1,2,3,4,7,8,9-HpCDF-13C	2.00	63
1,2,3,4,7,8-HxCDF	ND	-----	5.1	1,2,3,4,6,7,8-HpCDD-13C	2.00	78
1,2,3,6,7,8-HxCDF	ND	-----	4.5	OCDD-13C	4.00	71 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.4			
1,2,3,7,8,9-HxCDF	ND	-----	4.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.4	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.7	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	ND	-----	4.6			
1,2,3,7,8,9-HxCDD	ND	-----	5.5			
Total HxCDD	ND	-----	3.7			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.3	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.3	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.4			
Total HpCDD	ND	-----	4.4			
OCDF	ND	-----	10			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-07		
Lab Sample ID	10651953007		
Filename	L230524A_08		
Injected By	AH5		
Total Amount Extracted	970 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 13:05
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 17:18

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	ND	-----	2.1		2,3,7,8-TCDF-13C	2.00	94	
Total TCDF	2.7	-----	2.1	J	2,3,7,8-TCDD-13C	2.00	90	
					1,2,3,7,8-PeCDF-13C	2.00	105	
2,3,7,8-TCDD	ND	-----	2.3		2,3,4,7,8-PeCDF-13C	2.00	103	
Total TCDD	ND	-----	2.3		1,2,3,7,8-PeCDD-13C	2.00	113	
					1,2,3,4,7,8-HxCDF-13C	2.00	106	
1,2,3,7,8-PeCDF	ND	-----	2.6		1,2,3,6,7,8-HxCDF-13C	2.00	109	
2,3,4,7,8-PeCDF	2.0	-----	1.9	J	2,3,4,6,7,8-HxCDF-13C	2.00	104	
Total PeCDF	2.0	-----	1.9	J	1,2,3,7,8,9-HxCDF-13C	2.00	95	
					1,2,3,4,7,8-HxCDD-13C	2.00	99	
1,2,3,7,8-PeCDD	-----	2.6	2.1	IJ	1,2,3,6,7,8-HxCDD-13C	2.00	110	
Total PeCDD	ND	-----	2.1		1,2,3,4,6,7,8-HpCDF-13C	2.00	83	
					1,2,3,4,7,8,9-HpCDF-13C	2.00	74	
1,2,3,4,7,8-HxCDF	ND	-----	5.1		1,2,3,4,6,7,8-HpCDD-13C	2.00	89	
1,2,3,6,7,8-HxCDF	ND	-----	4.5		OCDD-13C	4.00	76	Y
2,3,4,6,7,8-HxCDF	ND	-----	4.4					
1,2,3,7,8,9-HxCDF	ND	-----	4.7		1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	ND	-----	4.4		1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	3.7		2,3,7,8-TCDD-37Cl4	0.20	97	
1,2,3,6,7,8-HxCDD	ND	-----	4.6					
1,2,3,7,8,9-HxCDD	ND	-----	5.6					
Total HxCDD	ND	-----	3.7					
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4		Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	4.4		Equivalence: 3.2 pg/L			
Total HpCDF	ND	-----	4.4		(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	ND	-----	4.4					
Total HpCDD	ND	-----	4.4					
OCDF	ND	-----	11					
OCDD	ND	-----	11					

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

J = Estimated value
I = Isotope ratio out of specification
Y = Calculated using average of daily RFs

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Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-08		
Lab Sample ID	10651953008		
Filename	L230524A_09		
Injected By	AH5		
Total Amount Extracted	971 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 14:35
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 18:01

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.1	2,3,7,8-TCDF-13C	2.00	93
Total TCDF	ND	-----	2.1	2,3,7,8-TCDD-13C	2.00	89
				1,2,3,7,8-PeCDF-13C	2.00	101
2,3,7,8-TCDD	ND	-----	2.3	2,3,4,7,8-PeCDF-13C	2.00	99
Total TCDD	ND	-----	2.3	1,2,3,7,8-PeCDD-13C	2.00	110
				1,2,3,4,7,8-HxCDF-13C	2.00	110
1,2,3,7,8-PeCDF	ND	-----	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	109
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	102
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	95
				1,2,3,4,7,8-HxCDD-13C	2.00	104
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	109
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	81
				1,2,3,4,7,8,9-HpCDF-13C	2.00	73
1,2,3,4,7,8-HxCDF	ND	-----	5.1	1,2,3,4,6,7,8-HpCDD-13C	2.00	86
1,2,3,6,7,8-HxCDF	ND	-----	4.5	OCDD-13C	4.00	70 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.4			
1,2,3,7,8,9-HxCDF	ND	-----	4.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.4	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.7	2,3,7,8-TCDD-37Cl4	0.20	103
1,2,3,6,7,8-HxCDD	ND	-----	4.6			
1,2,3,7,8,9-HxCDD	ND	-----	5.6			
Total HxCDD	ND	-----	3.7			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.4	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.4	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.4			
Total HpCDD	ND	-----	4.4			
OCDF	ND	-----	11			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-09		
Lab Sample ID	10651953009		
Filename	L230524A_10		
Injected By	AH5		
Total Amount Extracted	954 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/25/2023 15:25
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 18:44

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.1	2,3,7,8-TCDF-13C	2.00	84
Total TCDF	ND	-----	2.1	2,3,7,8-TCDD-13C	2.00	78
				1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	-----	2.3	2,3,4,7,8-PeCDF-13C	2.00	86
Total TCDD	ND	-----	2.3	1,2,3,7,8-PeCDD-13C	2.00	98
				1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	-----	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	85
1,2,3,7,8-PeCDD	ND	-----	2.2	1,2,3,6,7,8-HxCDD-13C	2.00	91
Total PeCDD	ND	-----	2.2	1,2,3,4,6,7,8-HpCDF-13C	2.00	67
				1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	ND	-----	5.2	1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	ND	-----	4.6	OCDD-13C	4.00	55 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.5			
1,2,3,7,8,9-HxCDF	ND	-----	4.8	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.5	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.8	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	ND	-----	4.7			
1,2,3,7,8,9-HxCDD	ND	-----	5.7			
Total HxCDD	ND	-----	3.8			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.5	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.4	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.4	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.5			
Total HpCDD	ND	-----	4.5			
OCDF	ND	-----	11			
OCDD	ND	-----	12			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-10		
Lab Sample ID	10651953010		
Filename	L230524A_11		
Injected By	AH5		
Total Amount Extracted	984 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/26/2023 10:50
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/10/2023 10:30
Method Blank ID	BLANK-105999	Analyzed	05/24/2023 19:27

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.1	2,3,7,8-TCDF-13C	2.00	98
Total TCDF	ND	-----	2.1	2,3,7,8-TCDD-13C	2.00	95
				1,2,3,7,8-PeCDF-13C	2.00	105
2,3,7,8-TCDD	ND	-----	2.2	2,3,4,7,8-PeCDF-13C	2.00	106
Total TCDD	ND	-----	2.2	1,2,3,7,8-PeCDD-13C	2.00	120
				1,2,3,4,7,8-HxCDF-13C	2.00	111
1,2,3,7,8-PeCDF	ND	-----	2.5	1,2,3,6,7,8-HxCDF-13C	2.00	111
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	104
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	98
				1,2,3,4,7,8-HxCDD-13C	2.00	103
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	111
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	87
				1,2,3,4,7,8,9-HpCDF-13C	2.00	76
1,2,3,4,7,8-HxCDF	ND	-----	5.1	1,2,3,4,6,7,8-HpCDD-13C	2.00	91
1,2,3,6,7,8-HxCDF	ND	-----	4.5	OCDD-13C	4.00	76 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.3			
1,2,3,7,8,9-HxCDF	ND	-----	4.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.3	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.6	2,3,7,8-TCDD-37Cl4	0.20	102
1,2,3,6,7,8-HxCDD	ND	-----	4.6			
1,2,3,7,8,9-HxCDD	ND	-----	5.5			
Total HxCDD	ND	-----	3.6			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.3	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.3	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.3			
Total HpCDD	ND	-----	4.3			
OCDF	ND	-----	10			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-11		
Lab Sample ID	10651953011		
Filename	L230524A_12		
Injected By	AH5		
Total Amount Extracted	999 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/26/2023 12:25
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/11/2023 11:44
Method Blank ID	BLANK-106043	Analyzed	05/24/2023 20:10

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.0	2,3,7,8-TCDF-13C	2.00	64
Total TCDF	ND	-----	2.0	2,3,7,8-TCDD-13C	2.00	64
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	ND	-----	2.2	2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	ND	-----	2.2	1,2,3,7,8-PeCDD-13C	2.00	80
				1,2,3,4,7,8-HxCDF-13C	2.00	86
1,2,3,7,8-PeCDF	ND	-----	2.5	1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	ND	-----	1.8	2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	ND	-----	1.8	1,2,3,7,8,9-HxCDF-13C	2.00	76
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	88
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	65
				1,2,3,4,7,8,9-HpCDF-13C	2.00	55
1,2,3,4,7,8-HxCDF	ND	-----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	66
1,2,3,6,7,8-HxCDF	ND	-----	4.4	OCDD-13C	4.00	54 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.3			
1,2,3,7,8,9-HxCDF	ND	-----	4.6	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.3	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.6	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	ND	-----	4.5			
1,2,3,7,8,9-HxCDD	ND	-----	5.4			
Total HxCDD	ND	-----	3.6			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.3	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.2	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.2	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.3			
Total HpCDD	ND	-----	4.3			
OCDF	ND	-----	10			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Con-Test Laboratories

Client's Sample ID	23D3524-12		
Lab Sample ID	10651953012		
Filename	L230524A_13		
Injected By	AH5		
Total Amount Extracted	988 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/26/2023 14:30
ICAL ID	L230505	Received	05/04/2023 08:50
CCal Filename(s)	L230523B_17 & L230524A_18	Extracted	05/11/2023 11:44
Method Blank ID	BLANK-106043	Analyzed	05/24/2023 20:54

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.0	2,3,7,8-TCDF-13C	2.00	65
Total TCDF	ND	-----	2.0	2,3,7,8-TCDD-13C	2.00	63
				1,2,3,7,8-PeCDF-13C	2.00	74
2,3,7,8-TCDD	ND	-----	2.2	2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	-----	2.2	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	94
1,2,3,7,8-PeCDF	ND	-----	2.5	1,2,3,6,7,8-HxCDF-13C	2.00	98
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	90
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	83
				1,2,3,4,7,8-HxCDD-13C	2.00	81
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	101
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	60
1,2,3,4,7,8-HxCDF	ND	-----	5.1	1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	ND	-----	4.4	OCDD-13C	4.00	58 Y
2,3,4,6,7,8-HxCDF	ND	-----	4.3			
1,2,3,7,8,9-HxCDF	ND	-----	4.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.3	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.6	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	ND	-----	4.5			
1,2,3,7,8,9-HxCDD	ND	-----	5.5			
Total HxCDD	ND	-----	3.6			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.3	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.3	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.3			
Total HpCDD	ND	-----	4.3			
OCDF	ND	-----	10			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Y = Calculated using average of daily RFs

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Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKNV		
Lab Sample ID	BLANK-105999	Matrix	Water
Filename	U230516C_04	Dilution	NA
Total Amount Extracted	1010 mL	Extracted	05/10/2023 10:30
ICAL ID	U230516	Analyzed	05/17/2023 01:29
CCal Filename(s)	U230516C_01 & U230516C_17	Injected By	SMT

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	ND	-----	2.0	A	2,3,7,8-TCDF-13C	2.00	70	
Total TCDF	ND	-----	2.0		2,3,7,8-TCDD-13C	2.00	56	
					1,2,3,7,8-PeCDF-13C	2.00	82	
2,3,7,8-TCDD	ND	-----	2.2		2,3,4,7,8-PeCDF-13C	2.00	82	
Total TCDD	ND	-----	2.2		1,2,3,7,8-PeCDD-13C	2.00	76	
					1,2,3,4,7,8-HxCDF-13C	2.00	78	
1,2,3,7,8-PeCDF	ND	-----	2.5		1,2,3,6,7,8-HxCDF-13C	2.00	76	
2,3,4,7,8-PeCDF	ND	-----	1.8		2,3,4,6,7,8-HxCDF-13C	2.00	85	Y
Total PeCDF	ND	-----	1.8		1,2,3,7,8,9-HxCDF-13C	2.00	73	
					1,2,3,4,7,8-HxCDD-13C	2.00	60	
1,2,3,7,8-PeCDD	ND	-----	2.0		1,2,3,6,7,8-HxCDD-13C	2.00	63	
Total PeCDD	ND	-----	2.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	45	
					1,2,3,4,7,8,9-HpCDF-13C	2.00	49	
1,2,3,4,7,8-HxCDF	ND	-----	4.9		1,2,3,4,6,7,8-HpCDD-13C	2.00	63	Y
1,2,3,6,7,8-HxCDF	ND	-----	4.3		OCDD-13C	4.00	53	
2,3,4,6,7,8-HxCDF	ND	-----	4.2					
1,2,3,7,8,9-HxCDF	ND	-----	4.5		1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	ND	-----	4.2		1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	4.0	-----	3.5	J	2,3,7,8-TCDD-37Cl4	0.20	73	
1,2,3,6,7,8-HxCDD	ND	-----	4.4					
1,2,3,7,8,9-HxCDD	ND	-----	5.4					
Total HxCDD	4.0	-----	3.5	J				
1,2,3,4,6,7,8-HpCDF	ND	-----	4.3		Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	4.2		Equivalence: 0.40 pg/L			
Total HpCDF	ND	-----	4.2		(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	ND	-----	4.2					
Total HpCDD	ND	-----	4.2					
OCDF	ND	-----	10					
OCDD	ND	-----	11					

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
Y = Calculated using average of daily RFs

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Fax: 612- 607-6444

Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKNZ		
Lab Sample ID	BLANK-106043	Matrix	Water
Filename	U230520A_04	Dilution	NA
Total Amount Extracted	978 mL	Extracted	05/11/2023 11:44
ICAL ID	U230517	Analyzed	05/20/2023 06:15
CCal Filename(s)	U230519A_19 & U230520A_17	Injected By	SM

Native Isomers	Conc pg/L	EMPC pg/L	MDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	2.1	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	ND	-----	2.1	2,3,7,8-TCDD-13C	2.00	74
				1,2,3,7,8-PeCDF-13C	2.00	89
2,3,7,8-TCDD	ND	-----	2.3	2,3,4,7,8-PeCDF-13C	2.00	88
Total TCDD	ND	-----	2.3	1,2,3,7,8-PeCDD-13C	2.00	95
				1,2,3,4,7,8-HxCDF-13C	2.00	98
1,2,3,7,8-PeCDF	ND	-----	2.6	1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	ND	-----	1.9	2,3,4,6,7,8-HxCDF-13C	2.00	94
Total PeCDF	ND	-----	1.9	1,2,3,7,8,9-HxCDF-13C	2.00	91
				1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	-----	2.1	1,2,3,6,7,8-HxCDD-13C	2.00	88
Total PeCDD	ND	-----	2.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	66
				1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	-----	5.1	1,2,3,4,6,7,8-HpCDD-13C	2.00	77
1,2,3,6,7,8-HxCDF	ND	-----	4.5	OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	ND	-----	4.4			
1,2,3,7,8,9-HxCDF	ND	-----	4.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	4.4	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	3.7	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	ND	-----	4.6			
1,2,3,7,8,9-HxCDD	ND	-----	5.6			
Total HxCDD	ND	-----	3.7			
1,2,3,4,6,7,8-HpCDF	ND	-----	4.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	4.3	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	4.3	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	4.4			
Total HpCDD	ND	-----	4.4			
OCDF	ND	-----	10			
OCDD	ND	-----	11			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-106000		
Filename	U230516A_01	Matrix	Water
Total Amount Extracted	961 mL	Dilution	NA
ICAL ID	U230509	Extracted	05/10/2023 10:30
CCal Filename(s)	U230515B_17 & U230516A_08	Analyzed	05/16/2023 08:11
Method Blank ID	BLANK-105999	Injected By	SM

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	99	2,3,7,8-TCDF-13C	2.0	76
Total TCDF				2,3,7,8-TCDD-13C	2.0	68
				1,2,3,7,8-PeCDF-13C	2.0	80
2,3,7,8-TCDD	0.20	0.21	107	2,3,4,7,8-PeCDF-13C	2.0	80
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	83
				1,2,3,4,7,8-HxCDF-13C	2.0	82
1,2,3,7,8-PeCDF	1.0	0.89	89	1,2,3,6,7,8-HxCDF-13C	2.0	80
2,3,4,7,8-PeCDF	1.0	0.91	91	2,3,4,6,7,8-HxCDF-13C	2.0	81
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	75
				1,2,3,4,7,8-HxCDD-13C	2.0	72
1,2,3,7,8-PeCDD	1.0	0.88	88	1,2,3,6,7,8-HxCDD-13C	2.0	79
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	63
				1,2,3,4,7,8,9-HpCDF-13C	2.0	64
1,2,3,4,7,8-HxCDF	1.0	0.90	90	1,2,3,4,6,7,8-HpCDD-13C	2.0	73
1,2,3,6,7,8-HxCDF	1.0	0.94	94	OCDD-13C	4.0	76 Y
2,3,4,6,7,8-HxCDF	1.0	0.97	97			
1,2,3,7,8,9-HxCDF	1.0	0.99	99	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.0	103	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	1.0	1.00	100			
1,2,3,7,8,9-HxCDD	1.0	1.00	100			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	0.97	97			
1,2,3,4,7,8,9-HpCDF	1.0	0.96	96			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.89	89			
Total HpCDD						
OCDF	2.0	2.1	103			
OCDD	2.0	2.1	103			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-106044		
Filename	U230520A_01	Matrix	Water
Total Amount Extracted	975 mL	Dilution	NA
ICAL ID	U230517	Extracted	05/11/2023 11:44
CCal Filename(s)	U230519A_19 & U230520A_17	Analyzed	05/20/2023 03:57
Method Blank ID	BLANK-106043	Injected By	SM

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	101	2,3,7,8-TCDF-13C	2.0	67
Total TCDF				2,3,7,8-TCDD-13C	2.0	62
				1,2,3,7,8-PeCDF-13C	2.0	76
2,3,7,8-TCDD	0.20	0.21	105	2,3,4,7,8-PeCDF-13C	2.0	75
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	81
				1,2,3,4,7,8-HxCDF-13C	2.0	83
1,2,3,7,8-PeCDF	1.0	0.98	98	1,2,3,6,7,8-HxCDF-13C	2.0	76
2,3,4,7,8-PeCDF	1.0	1.00	100	2,3,4,6,7,8-HxCDF-13C	2.0	79
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	79
				1,2,3,4,7,8-HxCDD-13C	2.0	73
1,2,3,7,8-PeCDD	1.0	0.86	86	1,2,3,6,7,8-HxCDD-13C	2.0	79
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	62
				1,2,3,4,7,8,9-HpCDF-13C	2.0	59
1,2,3,4,7,8-HxCDF	1.0	1.00	100	1,2,3,4,6,7,8-HpCDD-13C	2.0	68
1,2,3,6,7,8-HxCDF	1.0	1.0	101	OCDD-13C	4.0	55
2,3,4,6,7,8-HxCDF	1.0	1.1	107			
1,2,3,7,8,9-HxCDF	1.0	1.0	101	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	0.96	96	2,3,7,8-TCDD-37Cl4	0.20	75
1,2,3,6,7,8-HxCDD	1.0	0.89	89			
1,2,3,7,8,9-HxCDD	1.0	0.86	86			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	0.95	95			
1,2,3,4,7,8,9-HpCDF	1.0	0.97	97			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.82	82			
Total HpCDD						
OCDF	2.0	2.0	102			
OCDD	2.0	2.1	106			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-106001		
Filename	U230516A_02	Matrix	Water
Total Amount Extracted	986 mL	Dilution	NA
ICAL ID	U230509	Extracted	05/10/2023 10:30
CCal Filename(s)	U230515B_17 & U230516A_08	Analyzed	05/16/2023 08:55
Method Blank ID	BLANK-105999	Injected By	SM

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	102	2,3,7,8-TCDF-13C	2.0	83
Total TCDF				2,3,7,8-TCDD-13C	2.0	76
				1,2,3,7,8-PeCDF-13C	2.0	87
2,3,7,8-TCDD	0.20	0.22	108	2,3,4,7,8-PeCDF-13C	2.0	85
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	89
				1,2,3,4,7,8-HxCDF-13C	2.0	98
1,2,3,7,8-PeCDF	1.0	0.92	92	1,2,3,6,7,8-HxCDF-13C	2.0	97
2,3,4,7,8-PeCDF	1.0	0.92	92	2,3,4,6,7,8-HxCDF-13C	2.0	97
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	87
				1,2,3,4,7,8-HxCDD-13C	2.0	86
1,2,3,7,8-PeCDD	1.0	0.89	89	1,2,3,6,7,8-HxCDD-13C	2.0	82
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	71
				1,2,3,4,7,8,9-HpCDF-13C	2.0	69
1,2,3,4,7,8-HxCDF	1.0	0.89	89	1,2,3,4,6,7,8-HpCDD-13C	2.0	80
1,2,3,6,7,8-HxCDF	1.0	0.94	94	OCDD-13C	4.0	79 Y
2,3,4,6,7,8-HxCDF	1.0	0.95	95			
1,2,3,7,8,9-HxCDF	1.0	0.96	96	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.0	103	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	1.0	0.95	95			
1,2,3,7,8,9-HxCDD	1.0	1.00	100			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	0.98	98			
1,2,3,4,7,8,9-HpCDF	1.0	0.94	94			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.88	88			
Total HpCDD						
OCDF	2.0	2.3	114			
OCDD	2.0	2.1	103			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-106045		
Filename	U230520A_02	Matrix	Water
Total Amount Extracted	967 mL	Dilution	NA
ICAL ID	U230517	Extracted	05/11/2023 11:44
CCal Filename(s)	U230519A_19 & U230520A_17	Analyzed	05/20/2023 04:43
Method Blank ID	BLANK-106043	Injected By	SM

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	100	2,3,7,8-TCDF-13C	2.0	58
Total TCDF				2,3,7,8-TCDD-13C	2.0	55
				1,2,3,7,8-PeCDF-13C	2.0	67
2,3,7,8-TCDD	0.20	0.21	106	2,3,4,7,8-PeCDF-13C	2.0	68
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	72
				1,2,3,4,7,8-HxCDF-13C	2.0	80
1,2,3,7,8-PeCDF	1.0	0.98	98	1,2,3,6,7,8-HxCDF-13C	2.0	75
2,3,4,7,8-PeCDF	1.0	0.95	95	2,3,4,6,7,8-HxCDF-13C	2.0	77
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	73
				1,2,3,4,7,8-HxCDD-13C	2.0	70
1,2,3,7,8-PeCDD	1.0	0.84	84	1,2,3,6,7,8-HxCDD-13C	2.0	71
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	56
				1,2,3,4,7,8,9-HpCDF-13C	2.0	55
1,2,3,4,7,8-HxCDF	1.0	0.98	98	1,2,3,4,6,7,8-HpCDD-13C	2.0	64
1,2,3,6,7,8-HxCDF	1.0	1.0	100	OCDD-13C	4.0	52
2,3,4,6,7,8-HxCDF	1.0	1.00	100			
1,2,3,7,8,9-HxCDF	1.0	1.1	106	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	0.96	96	2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	1.0	0.90	90			
1,2,3,7,8,9-HxCDD	1.0	0.88	88			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	0.94	94			
1,2,3,4,7,8,9-HpCDF	1.0	0.92	92			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.83	83			
Total HpCDD						
OCDF	2.0	2.0	98			
OCDD	2.0	2.0	100			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Method 8290

Spike Recovery Relative Percent Difference (RPD) Results

Client	Con-Test Laboratories		
Spike 1 ID	LCS-106000	Spike 2 ID	LCSD-106001
Spike 1 Filename	U230516A_01	Spike 2 Filename	U230516A_02

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	99	102	3.0
2,3,7,8-TCDD	107	108	0.9
1,2,3,7,8-PeCDF	89	92	3.3
2,3,4,7,8-PeCDF	91	92	1.1
1,2,3,7,8-PeCDD	88	89	1.1
1,2,3,4,7,8-HxCDF	90	89	1.1
1,2,3,6,7,8-HxCDF	94	94	0.0
2,3,4,6,7,8-HxCDF	97	95	2.1
1,2,3,7,8,9-HxCDF	99	96	3.1
1,2,3,4,7,8-HxCDD	103	103	0.0
1,2,3,6,7,8-HxCDD	100	95	5.1
1,2,3,7,8,9-HxCDD	100	100	0.0
1,2,3,4,6,7,8-HpCDF	97	98	1.0
1,2,3,4,7,8,9-HpCDF	96	94	2.1
1,2,3,4,6,7,8-HpCDD	89	88	1.1
OCDF	103	114	10.1
OCDD	103	103	0.0

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290

Spike Recovery Relative Percent Difference (RPD) Results

Client	Con-Test Laboratories		
Spike 1 ID	LCS-106044	Spike 2 ID	LCSD-106045
Spike 1 Filename	U230520A_01	Spike 2 Filename	U230520A_02

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	101	100	1.0
2,3,7,8-TCDD	105	106	0.9
1,2,3,7,8-PeCDF	98	98	0.0
2,3,4,7,8-PeCDF	100	95	5.1
1,2,3,7,8-PeCDD	86	84	2.4
1,2,3,4,7,8-HxCDF	100	98	2.0
1,2,3,6,7,8-HxCDF	101	100	1.0
2,3,4,6,7,8-HxCDF	107	100	6.8
1,2,3,7,8,9-HxCDF	101	106	4.8
1,2,3,4,7,8-HxCDD	96	96	0.0
1,2,3,6,7,8-HxCDD	89	90	1.1
1,2,3,7,8,9-HxCDD	86	88	2.3
1,2,3,4,6,7,8-HpCDF	95	94	1.1
1,2,3,4,7,8,9-HpCDF	97	92	5.3
1,2,3,4,6,7,8-HpCDD	82	83	1.2
OCDF	102	98	4.0
OCDD	106	100	5.8

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

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Appendix E: Building Materials Assessment Reports

KD
ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING
AND CONTRACTING

23 September 2022

Ms. Rebecca Treat, P.G.
Stone Environmental, Inc.
535 Stone Cutters Way
Montpelier, Vermont 05602

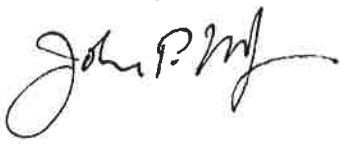
Re: Asbestos Assessment, Storage Building, 7412 VT 113, Thetford, Vermont
KD Project No. 94119-009

Dear Rebecca:

At your request, a representative of K-D Associates, Inc. visited a collapsed building located at 7412 VT 113 in Thetford, Vermont to conduct an assessment for the presence of asbestos containing building materials. The inspection identified no suspect building materials and no samples were collected. Observed materials included wood structural members, cinder blocks and metal roofing.

Please do not hesitate to call if you have any questions or need additional information.

Sincerely



John Madigan

41 IDX Drive • Suite 209 • South Burlington • Vermont • 05403-7757
(802) 862-7490 • (800) 639-2035 • Fax (802) 660-2462
e-mail: kdai@kdassociatesinc.com • website: www.kdassociatesinc.com

KD
ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING
AND CONTRACTING

23 September 2022

Ms. Rebecca Treat, P. G.
Stone Environmental, Inc.
535 Stone Cutters Way
Montpelier, Vermont 05602

Re: TCLP for Lead, Expected Waste Stream, 7412 VT 113, Thetford, Vermont
K-D Project No. 94119-009

Dear Rebecca:

Listed below please find the result of a composite sample of waste materials expected to be generated during the removal of a small storage building located at 7412 VT 113, Thetford, Vermont. The sample was tested for the presence and concentration of leachable lead using Toxicity Characteristic Leachate Procedure (TCLP). The results are as follows:

Sample I.D.	mg/l (milligrams per liter)
Expected Waste Stream	**0.40** mg/l

The EPA, under the Resource Conservation and Recovery Act (RCRA), regulates the disposal of hazardous wastes. For lead, the limit of extractable material in waste is 5 ppm (5 mg/l). Please contact me if you have any questions.

Sincerely,

John P. Madigan

41 IDX Drive • Suite 209 • South Burlington • Vermont • 05403-7757
(802) 862-7490 • (800) 639-2035 • Fax (802) 660-2462
e-mail: kdai@kdassociatesinc.com • website: www.kdassociatesinc.com

EMSL Analytical, Inc.
10801 Southern Loop Blvd, Pineville, NC 28134
Phone: (704) 525-2205 Fax: (704) 525-2382 Email: charlottelab@emsl.com

Attn: **K-D Associates, Inc.**
K-D Associates
41 IDX Drive
Suite 209
South Burlington, VT 05403
Phone: (802) 862-7490
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9/22/2022

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/20/2022. The results are tabulated on the attached data pages for the following client designated project:

Stone Environmental/ 94119.009/ Thetford, VT

The reference number for these samples is EMSL Order #412209399. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (704) 525-2205.

Approved By:

Lee Plumley, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

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10801 Southern Loop Blvd, Pineville, NC 28134
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EMSL Order: 412209399
CustomerID: KDAI50
CustomerPO:
ProjectID:

Attn: **K-D Associates, Inc.**
K-D Associates
41 IDX Drive
Suite 209
South Burlington, VT 05403

Phone: (802) 862-7490
Fax: (802) 660-2462
Received: 9/20/2022 09:25 AM
Collected:

Project: **Stone Environmental/ 94119.009/ Thetford, VT**

Analytical Results

Client Sample Description 01
Composite Building Materials

Collected:

Lab ID: *412209399-0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*		*Analysis Date & Analyst*	
METALS								
TCLP 1311/6010D	Lead	ND	0.40	mg/L	9/21/2022	AH	9/22/2022 13:03	LP

Definitions:

MDL - method detection limit
J - Result was below the reporting limit, but at or above the MDL
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)
D - Dilution Sample required a dilution which was used to calculate final results