Phase	Type
X Initial Site Investigation Corrective Action Feasibility Investigation Corrective Action Plan Corrective Action Summary Report Operations and Monitoring Report	Work Scope **X Technical Report** PCF Reimbursement Request General Correspondence

INITIAL SITE INVESTIGATION

North Street/Melrose Avenue
12 North Street
Rutland, Vermont

SMS Site #2015-4601

For

Mr. James Donaldson
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EXECUTIVE SUMMARY

Environmental Compliance Services, Inc. (ECS), under contract to the Vermont Department of Environmental Conservation (VT DEC), completed an Initial Site Investigation (ISI) at several properties on North Street and Melrose Avenue centered on 12 North Street in Rutland, VT.

The objective of this ISI was to evaluate the source, nature, and extent of petroleum contamination entering the basement at 12 North Street and emerging in the back yard at 14 North Street. This contamination is coupled with water intrusion in other basements and structures in the general vicinity of the North St/Melrose Ave neighborhoods. The City of Rutland is currently evaluating potential source(s) of the water intrusion and has been communicating their results with affected homeowners via several site status email updates. As of this writing, the source of the water intrusion has not been determined, but the City has indicated that it is likely groundwater. It is ECS' understanding that the water intrusion issue began in February 2015 and that the City of Rutland and the VT DEC has been investigating the issue since then. ECS was notified of the petroleum contamination on 10 July 2015 by VT DEC.

The ISI consisted of soil borings, soil sampling, discrete interval groundwater sampling, installation of groundwater monitoring wells, and groundwater elevation monitoring. Based on results, ECS concludes the following:

- Contaminated groundwater that reportedly began entering the basement at 12 North Street and the backyard of 14 North Street on or around February 2015 has been identified as gasoline and appears to be weathered in nature. Elevated photoionization (PID) readings coupled with gray or black staining and petroleum odors were identified in several soil borings ranging from 309 to 1,018 parts per million (ppm) in soils directly above the assumed bedrock surface. Volatile organic compounds (VOCs) in soils) were detected in several soil borings with the highest concentrations detected in SB-2 (226,793 µg/kg). SB-2 and SB-13 exceeded Soil Screening Values (SSVs).

- No groundwater contaminants in any of the discrete interval sampling locations exceeded Vermont Groundwater Enforcement Standards (VGES); however naphthalene exceeded Vapor Intrusion Screening Value (VISV) in SB-15 at 6 North Street. These results indicate a low dissolved fraction indicative of an older release.

- Groundwater elevation data indicates that depth to water ranged from 2.95 ft. *above* top of casing (TOC) in MW-1D to 4.70 ft. below TOC in MW-5. Shallow horizontal groundwater flow is to the west-southwest with a hydraulic gradient of 6.2%. A steep upward vertical gradient of up to -54% was identified, which indicates a strong artesian condition in the area likely from a confined or semi-confined aquifer.

- Indoor air testing indicates petroleum compounds in part related to the contaminated groundwater entering the basement at 12 North Street were detected above VISVs. Additional testing following the installation of carbon scrubbers indicates that this preliminary vapor mitigation measure reduced petroleum contaminants below VISVs at the time of testing. However, non-petroleum VOCs that may or may not be related to the contaminated groundwater intruding into the basement remain above VISVs.

- The water intrusion appears to have mobilized pre-existing gasoline contamination from an unknown, potentially historic source due to the apparent weathered nature of the contamination[1]. A likely source of the contamination is Bruno's Auto Repair (former gasoline service station), which appears to be hydraulically upgradient with respect to overburden groundwater flow of the contamination, due to the discovery of weathered gasoline in soils atop bedrock in the 1990s.

- The source of the water intrusion has not been verified, but one possible scenario may be groundwater from a confined or semi-confined aquifer due to strong upward gradients and artesian conditions observed during this ISI. The City of Rutland has conducted its own investigation to determine if any municipal water lines have leaked and possibly contributed to the water intrusions; however, the City has indicated that no water line leaks were discovered in the area capable of producing the amount of water intrusion observed.

- The subsurface mechanism at which possible petroleum contamination that may exist at Bruno's may be migrating to the affected properties has not been determined with the current dataset, which includes unsaturated overburden at Bruno's (based on historic data) and between Bruno's and the affected properties. Additional investigation into the bedrock aquifer and potential preferential pathways including subsurface utilities is required to further evaluate this potential connection. The relationship between the bedrock aquifer and the overburden aquifer is not known and was not the objective of this ISI.

Based on the above conclusions ECS has the following recommendations:

- Continue to evaluate vapor impacts to indoor air quality and perform operation & maintenance (O&M) on existing carbon air scrubbers as necessary,

- Sample the monitoring wells for VOCs by EPA Method 8260 to support previous groundwater sampling data. Consider utilizing the low flow methodology so that groundwater chemistry parameters can be collected to supplement observations regarding oxidation-reduction conditions,

- Further evaluate all potential sources of gasoline use in the area through a Phase I Environmental Site Assessment (ESA) or other database sources such as Sanborn Fire Insurance Maps, or City historical records research,

- Conduct soil and groundwater testing of Bruno's property for VOCs to assist in identifying the source of contamination impacting North Street residents. Further define the downgradient limits of dissolved contamination on 16 and 18 North Street properties,

- Perform a geophysical survey utilizing electromagnetic (EM), ground penetrating radar (GPR), and/or other methodologies to comprehensively map underground utilities for the purpose of determining potential preferential pathways for contaminant migration,

- Conduct a bedrock investigation to evaluate the relationship between the bedrock aquifer and overburden aquifer to assist in determining the fate and transport of contaminants,

- Conduct a Corrective Action Feasibility Investigation (CAFI) to evaluate remedial alternatives.

[1] This is based on olfactory evidence and a preliminary review of analytical chemistry. Additional testing and/or fingerprinting would be required to further evaluate the age and nature of the contamination.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
1.0 INTRODUCTION 1
2.0 PREVIOUS INVESTIGATIONS 2
3.0 INVESTIGATIVE PROCEDURES AND RESULTS 4
3.1 SOIL BORINGS, SOIL SAMPLING, AND DISCRETE INTERVAL GROUNDWATER SAMPLING 4
3.2 INSTALLATION OF GROUNDWATER MONITORING WELLS 5
3.3 GROUNDWATER ELEVATION DATA 5
4.0 INDOOR AIR QUALITY TESTING & MITIGATION 7
5.0 CONCEPTUAL SITE MODEL 8
6.0 CONCLUSIONS & RECOMMENDATIONS 9

FIGURES

Figure 1 Site Locus
Figure 2 Site Plan
Figure 3 Soil Contaminant Distribution Map
Figure 4 Groundwater Contaminant Distribution Map
Figure 5 Groundwater Elevation Contour Map
Figure 6 Cross Section A-A'
Figure 7 Cross Section B-B'

TABLES

Table 1 Groundwater Quality Results
Table 2 Soil Analytical Data
Table 3 Groundwater Elevation Calculations
Table 4 Indoor Air Analytical Results

APPENDICES

Appendix A Laboratory Analytical Reports
Appendix B Boring Logs / Monitoring Well Construction Details

1.0 INTRODUCTION

Environmental Compliance Services, Inc. (ECS), on behalf of the Vermont Department of Environmental Conservation (VT DEC), completed an Initial Site Investigation (ISI) at several properties on North Street and Melrose Avenue centered on 12 North Street in Rutland, VT. The ISI consisted of soil borings, soil sampling, discrete interval groundwater sampling, installation of groundwater monitoring wells, and groundwater elevation monitoring. The work was completed in accordance with ECS' work plan dated 02 September 2015, which was approved by James Donaldson of the VT DEC. The installation of groundwater monitoring wells and dataloggers was completed under separate contract with the City of Rutland. Sampling of the groundwater monitoring wells was not approved by VT DEC and was not conducted.

The properties at 6, 9, 11, 12, 14, and 16 North Street, and 11 and 17 Melrose Avenue where included in this study (**Figure 1**) under executed access agreements. These properties are located within a mixed residential and commercial area of Rutland, Vermont to the west of North Main Street (Route 7). ECS also submitted access agreements to 135 and 137 North Main Street; however, signed access agreements were never procured for these properties; and therefore, these were excluded from the study, which was approved by VT DEC.

The objective of this ISI was to evaluate the source, nature, and extent of petroleum contamination entering the basement at 12 North Street and emerging in the back yard (groundwater seeps) at 14 North Street. This contamination is coupled with water intrusion in other basements and structures in the general vicinity of the North St/Melrose Ave neighborhoods. The City of Rutland is currently evaluating potential source(s) of the water intrusion and has been communicating their results with affected homeowners via several site status email updates. As of this writing, the source of the water intrusion has not been determined. It is ECS' understanding that the water intrusion issue began in February 2015 (personal communication with Debra Poplawski of 12 North Street) and that the City of Rutland and the VT DEC has been investigating the issue since then. ECS was notified of the issue on 10 July 2015 by VT DEC.

2.0 PREVIOUS INVESTIGATIONS

ECS performed limited research of the Natural Resources Atlas and VT DEC databases and consulted with VT DEC to identify potential source(s) of the contamination. ECS did not perform a full file review or Phase I Environmental Site Assessment (ESA), which was not requested of us by VT DEC. Based on this limited research effort, a potential source of the contamination at the site is Bruno's Auto Repair at 137 North Main Street, which is a closed State hazardous waste site (#99-2649, identified as Buxton's Ltd.). In June 1999, two gasoline, one diesel, and one waste oil underground storage tanks (USTs) were removed from the property. Subsequent investigations revealed the presence of gasoline-contaminated soils beneath the former pump island on top of the assumed bedrock surface at approximately 7 feet below ground surface (ft. bgs). However, since the contaminant levels were below industrial standards at the time and no groundwater was encountered, the site was given a Sites Management Activity Completed (SMAC) designation by VT DEC on 10 October 2001.

Another potential source of the contamination at the site is Mac's Market at 145 North Main Street, which is two closed State hazardous waste sites (#93-1404, identified as Rutland Cumberland Farms, and #2009-3636, identified as Mac's Market). This property is listed in the VTDEC database as 144 North Main Street and 145-149 North Main Street). Gasoline contaminated soils were identified during the removal and replacement of three 8,000-gallon USTs in 1993. Contaminated soils were stockpiled and subsequently disposed off-site. No groundwater was encountered at this site as well, and therefore, the site was given a SMAC designation by VT DEC on 01 August 1996. This site was subsequently re-opened due to the discovery of gasoline-contaminated soils during a piping replacement project. A subsequent investigation revealed that contamination appeared limited to the area around the USTs and no groundwater was encountered, and therefore, the site was given another SMAC designation by VT DEC on 27 June 2011.

On 06 July 2015, the City performed a magnetometer survey of the entire yard of 12 North Street. The City reported two anomalies, one on the west side of the house and the other in the back yard (see **Figure 2**). The City indicated that both of the anomalies were weak and at point locations and the City surmised that they were most likely small metal items buried beneath the surface and not from a potential UST on site.

On 13 July 2015, the City oversaw a camera survey of the "cross-lots" sanitary sewer line that transects the properties at 18 North Street and 21 Melrose Avenue (see **Figure 2**). A vitrified clay lateral pipe was discovered mortared into the sewer and heading east at the back end of 21 Melrose Avenue. Clear water was observed flowing from the pipe into the sewer. The camera survey could not determine the source of this pipe. The City speculated that this pipe may be from an old cracked service line from a garage, from a sump pump that is now collecting a small amount of groundwater, or from a failed historic groundwater collection system that may be the cause of the water intrusion issues.

On 28 July 2015, ECS performed a preliminary inspection and sampling event at the site and surrounding properties. Four water samples were collected from 9 North Street basement, 12 North Street basement sump, 14 North Street back yard (seeps), and 17 Melrose Avenue garage basement. The samples were stored on ice and submitted to Spectrum Analytical, Inc. (Spectrum) for volatile organic compounds (VOCs) by US EPA Method 8260 and total petroleum hydrocarbons (TPH) by US EPA Method 8100 with fuel identification. Results are summarized in **Table 1** and the laboratory report is included in **Appendix A**. In summary, petroleum contamination has been identified as gasoline and other oil, which is consistent with visual and olfactory observations during the inspection. The highest concentrations were detected in 12 North Street basement sump. A slimy, black precipitate material and sheen were also noted in the basement, the former of which may be related to the oxidation of reduced manganese in

anaerobic groundwater, which is common in gasoline plumes. Additional geochemical analysis is required to further evaluate this. Petroleum-type VOCs were detected, including the following, which all appear to be related to gasoline contamination: n-Butylbenzene, sec-Butylbenzene, ethylbenzene, isopropylbenzene, 4-Isopropyltoluene, naphthalene, n-Propylbenzene, toluene, 1,2,4-Trimethylbenzene (TMB), 1,3,5-TMB, xylenes, and tert-amyl-methyl-ether (TAME). TMBs exceeded Vermont Groundwater Enforcement Standards (VGES). Xylenes and naphthalene exceed Vapor Intrusion Screening Values (VISVs). Naphthalene also exceeded VISV in the 14 North Yard sample. Non-petroleum VOCs were also detected, including chloroform in all samples, and bromodichloromethane in 9 North Street basement and 17 Melrose Avenue garage basement. These compounds are disinfection byproducts from drinking water sources and may be useful for the City in determining the source of the water intrusion. The 12 North Street basement sump water was sampled again on 24 August 2015 and 03 September 2015. Results indicate a similar chemical signature and stable concentrations between the July and August events. However, total VOCs essentially doubled between the August and September events. Refer to **Table 1**.

On 14 August 2015, a disabled truck was brought to Bruno's and its gasoline tank was drained into a floor drain. Later in the day, residents in the area reported strong gasoline odors emanating from catch basins and the Fire Department was mobilized and confirmed the presence of gasoline odors the catch basins. On 26 August 2015, the City performed a dye test on the floor drain and determined that it is connected to the sanitary sewer, which is separate from the stormwater system in this area. The City indicated that the cause of the vapors in the stormwater system may be related to a leaky floor drain discharge pipe and/or backflow of vapors from combined sanitary/storm system further downstream. It is ECS' understanding that the floor drain at Bruno's has been plugged.

3.0 INVESTIGATIVE PROCEDURES AND RESULTS

In September, ECS completed an ISI in accordance with the approved work plan. The following sections outline investigative procedures and results.

3.1 SOIL BORINGS, SOIL SAMPLING, AND DISCRETE INTERVAL GROUNDWATER SAMPLING

From 08 to 15 September 2015, ECS supervised the advancement of 20 soil borings (SB-1 through SB-20) utilizing direct push methodology by Platform Environmental Drilling (Platform). Access agreements were previously procured from homeowners. Refer to **Figure 2** for soil boring locations and **Appendix B** for boring logs. Soils were screened continuously, inspected for visual soil classification, and field-screened (baggy headspace method) for VOCs with a photoionization detector (PID). Soil borings were advanced to refusal, which is assumed bedrock, or to a maximum of 25 feet below ground surface (ft. bgs).

Soils generally consisted of sand and gravel fill material, silty sand with clay and cobble (likely ablation till), and gravel over assumed bedrock, which is dolostone according to the Bedrock Geologic Map of Vermont (2011). The assumed bedrock surface was encountered between 3 feet below ground surface (ft. bgs) in SB-5 to greater than 25 ft. bgs in SB-10. Bedrock outcrops were also observed in the middle of the east wall in the basement of 12 North Street, and across North Main Street at the intersection with North Street Extension. All soils in borings east of and including SB-7 were dry (no groundwater encountered) to the assumed bedrock surface. Saturated soils were encountered in all other borings generally at 6 to 8 ft. bgs except in the groundwater seep area, which exhibited saturation at the ground surface. This configuration appears to be due to artesian conditions, which is further discussed in Section 3.3. PID readings were elevated (>1.0 parts per million or ppm) in select wells. The highest readings in each boring that exhibited elevated readings are provided in **Table T-1** below:

TABLE T-1
SUMMARY OF FIELD-SCREENING RESULTS

Sample ID	Sample Depth (ft. bgs)	PID (ppm)	Notes
SB-1	6-7	671	Gray staining, petroleum odor
SB-2	13	1,018	Black staining, petroleum odor
SB-9	8	289	Gray staining, petroleum odor
SB-15	17	309	Gray staining, petroleum odor

Field-screening results indicate that the bulk of soil contamination was encountered within the property at 12 North Street and the western edge of the property at 6 North Street. It should be noted that elevated soil head space PID readings (up to 503 ppm) were previously detected by others in June 2000 at Bruno's (SB-4) in the area of the former pump island. According to boring logs, these soils exhibited a strong "old gasoline odor". This may be the source of contamination identified within these North Street properties; however, additional investigations are required due to complex geologic conditions, which is further discussed in this report.

To confirm field-screening results and to provide vertical and horizontal context, discrete interval soil and/or groundwater samples were collected at each location for on-site analysis utilizing an on-site laboratory provided by Stone Environmental, Inc. (Stone). Select soil samples were collected generally at horizons exhibiting the highest soil headspace PID response. If all PID readings were non-detect (ND),

the soil samples were collected in soils atop the assumed bedrock surface. Discrete interval groundwater samples were collected at one foot intervals at the discretion of onsite ECS personnel based on the field-screening results. All soil and groundwater samples were analyzed on-site for petroleum VOCs by US EPA Method 8021B. Soil cuttings were backfilled in each borehole following on-site approval of VT DEC. Two grab soil samples were also collected from sub-slab soils in the basement of 12 North Street in the area of existing holes in the slab (12 North SO-01 and 12 North SO-02). Refer to **Table 1** for groundwater quality results and **Table 2** for soil quality results. In summary, VOCs exceeding Soil Screening Values (SSVs) for residential and/or industrial soils were detected in SB-2 and SB-13 for TMBs and/or naphthalene. The highest concentrations were detected in SB-2 (226,793 micrograms per kilogram or µg/kg total VOCs). Refer to **Figure 3** for a soil contaminant distribution map, which also includes previous data from Mac's and Bruno's. It will be noted that although the elevated PID readings and soil observations for SB-4 at Bruno's appeared similar to contaminant signatures at this site, the current dataset cannot definitively connect Bruno's as the source of contamination as there is a wide datagap due to the presence of the Bruno's building and the residential structure at 6 North Street. Any additional investigations would need to account for these surface impediments.

Groundwater results indicate that petroleum VOCs were detected in SB-2, SB-8, SB-10, SB-12, SB-15, SB-17, and SB-18 for benzene, toluene, ethylbenzene, xylenes, TMBs and/or naphthalene. None of these detections exceeded VGES; although naphthalene exceeded the VISV in SB-15. The relatively low concentration of groundwater contaminants compared to higher soil contaminants provides evidence of an older release due to loss of the dissolved fraction. This corroborates soil observations of black staining and weathered petroleum odors, which are typically indicative of older releases. Refer to **Figure 4** for a groundwater contaminant distribution map, which generally mirrors the soil contaminant distribution, although dissolved contaminants are more prevalent in the groundwater seep area, where contaminated groundwater is emerging at the surface.

3.2 INSTALLATION OF GROUNDWATER MONITORING WELLS

From 11 to 15 September 2015, ECS oversaw the installation of 10 groundwater monitoring wells (MW-1S, MW-1D, MW-2S, MW-2D, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8) at locations that were determined in the field based on field screening and on-site laboratory results outlined in the previous section. Monitoirng wells with S/D designation were installed as couplet wells (one shallow and one deep well). This work was performed under separate contract with the City of Rutland at the request of VT DEC. The wells were installed by Platform and were constructed of 1-inch polyvinyl chloride (PVC) materials, including 0.010-slot screen sections ranging in lengths of 3.5 to 10 feet and set with the upper portion of the screen positioned at the top of the apparent saturated zone. As will be discussed later, the potentiometric surface was observed to be above the ground surface due to an upward flow component. The wells were surrounded by a sand pack and bentonite seal and protected at the surface with a flush-mounted road box cemented into place. Each monitoring well was developed with a bailer following installation. Development water was deposited on the ground surface adjacent to the well. ECS installed pressure transducers (30 PSI Level Troll 700 series) in five select wells for the City's use in further evaluating the source of water intrusion. These are not part of this ISI and will be discussed under separate cover.

3.3 GROUNDWATER ELEVATION DATA

On 01 October 2015, all ten monitoring wells (MW-1S, MW-1D, MW-2S, MW-2D, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8) were gauged for water depth to evaluate groundwater elevations and flow characteristics. Monitoring wells MW-7 was dry. Depth to water ranged from 2.95 ft. *above* top of casing (TOC) in MW-1D to 4.70 ft. below TOC in MW-5. Groundwater elevations were calculated by

subtracting the depth to water from surveyed top of casing (TOC) elevations. This data is tabulated in **Table 3**. A groundwater contour map was generated utilizing groundwater elevation data and is presented in **Figure 5**. The figure illustrates that shallow horizontal groundwater flow is to the west-southwest with a hydraulic gradient of 6.2% (MW-3 to MW-8). This horizontal groundwater flow direction is generally consistent with regional topography, which slopes west-southwest towards Tenney Brook, which is approximately 1,850 feet away. Vertical groundwater gradients were also calculated for well pairs MW-1S/D and MW-2S/D by dividing total change in head with distance between midpoints of the screen sections. Results indicate steep upward gradients at both locations of -54% and -38%, respectively, which indicates strong artesian conditions in these areas. Potentiometric surfaces and soil profile data are illustrated on the cross-sections included as **Figure 6** and **Figure 7**.

4.0 INDOOR AIR QUALITY TESTING & MITIGATION

On 19 August 2015, ECS sampled ambient indoor air at the Poplawski residence at 12 North Street to evaluate indoor air quality. Samples were collected in the basement (IA-Basement), first floor (IA_Floor1), and second floor (IA_Floor2). The samples were collected and analyzed for VOCs by US EPA Method TO-15 utilizing 6L Summa™ canisters connected to 24-hour flow controllers. Laboratory results are provided in **Appendix A** and indoor air quality results are summarized in **Table 4**.

Results are compared to VISV Target Indoor Air Concentrations set forth in Investigation and remediation of Contaminated Properties Procedure (IROCPP). Results indicate that several VOCs were detected above reporting limits in all three samples. Methylene chloride, chloroform, 1,2-Dichloroethane, benzene, carbon tetrachloride, and xylenes exceeded VISVs in one or more of the samples. Methylene chloride was likely a laboratory contaminant as this analyte was found in the associated blank. Chloroform is a water system disinfection byproduct and may be associated with the groundwater intruding into the basement since chloroform was previously detected in the basement sump water and the highest concentration in air was detected in the basement by an order of magnitude. However, chloroform is also used as a solvent, reagent, and anesthetic, and may be in part related to background from household cleaners. 1,2-Dichloroethane is a precursor to 1,1,1-trichloroethene used in dry cleaning and was historically used as an anti-knock additive in leaded fuels. The highest concentration in air was detected in the basement by a factor of two; however additional testing and studies would be required to determine if this contaminant is related to the contaminated groundwater entering the basement. Benzene is a constituent of gasoline and the highest concentration was detected in the basement by a factor of two and is likely related to the contaminated groundwater. Carbon tetrachloride is used as a solvent and in pesticides and is commonly found at low concentrations in indoor air and may be related to background from household cleaners. This is corroborated by the fact that the concentrations were similar in all three samples. Xylenes are constituents of petroleum fuels and may be related to the contaminated groundwater entering the basement and/or the 275-gallon fuel oil aboveground storage tank (AST) and associated heating system located in the basement.

On 20 August 2015, two 55-gallon vapor phase granular activated carbon (VGAC) scrubbers were installed in the basement as a preliminary measure in mitigating exposure to indoor air contaminants. The scrubbers were installed next to the stairwell and next to the sump. On 26 August 2015, one additional scrubber was installed on the first floor as an additional protective measure as approved by VT DEC. On 03 September 2015, ECS re-sampled indoor air at the same sample locations as the previous event to establish post-scrubber conditions. Laboratory results are provided in **Appendix A** and the indoor air quality results are summarized in **Table 4**. Results indicate that petroleum VOCs including benzene and xylenes, which previously exceeded VISVs, decreased below VISVs in the basement. Other petroleum VOCs that were previously detected below VISVs also decreased, which indicates the effectiveness of the scrubbers in reducing airborne contaminants.

5.0 CONCEPTUAL SITE MODEL

Gasoline-contaminated groundwater was detected by field and laboratory methods intruding into the basement of 12 North Street and the backyard of 14 North Street. The infiltration of gasoline-contaminated groundwater was discovered on or around March 2015, although a greater water intrusion issue in the area was reported on or around February 2015 (personal communication with Debra Poplawski). The source of the water intrusion has not been verified, but one possible scenario may be groundwater from a confined or semi-confined aquifer due to strong upward gradients and artesian conditions observed during this ISI. The City of Rutland has conducted its own investigation to determine if any municipal water lines have leaked and possibly contributed to the water intrusions; however, the City has indicated that no water line leaks were discovered in the area capable of producing the amount of water intrusion observed.

The water intrusion appears to have mobilized pre-existing gasoline contamination from an unknown, potentially historic source due to the apparent weathered nature of the contamination[1]. A likely source of the contamination is Bruno's Auto Repair (former gasoline service station), which appears to be hydraulically upgradient with respect to overburden groundwater flow of the contamination discovered on 12 and 14 North Street, due to the discovery of weathered gasoline in soils atop bedrock in the 1990s. However, the subsurface mechanism at which petroleum contamination at Bruno's may be migrating to the affected properties has not been determined with the current dataset, which includes unsaturated overburden both at Bruno's (based on historic data) and between Bruno's and the affected properties. Additional investigation into the bedrock aquifer and potential preferential pathways including subsurface utilities is required to further evaluate this potential connection. The relationship between the bedrock aquifer and the overburden aquifer is not known and was not the objective of this ISI.

[1] This is based on olfactory evidence and a preliminary review of analytical chemistry. Additional testing and/or forensics would be required to further evaluate the age and nature of the contamination.

6.0 CONCLUSIONS & RECOMMENDATIONS

ECS, on behalf of the VT DEC, completed ISI at several properties on North Street and Melrose Avenue centered on 12 North Street in Rutland, VT. The objective of this ISI was to evaluate the source, nature, and extent of petroleum contamination entering the basement at 12 North Street and emerging in the back yard (groundwater seeps) at 14 North Street. This contamination is coupled with water intrusion in other basements and structures in the general vicinity of the North St/Melrose Ave neighborhoods. The ISI consisted of soil borings, soil sampling, discrete interval groundwater sampling, installation of groundwater monitoring wells, and groundwater elevation monitoring. Based on the results of our ISI, ECS concludes the following:

- Contaminated groundwater that reportedly began entering the basement at 12 North Street and the backyard of 14 North Street on or around March 2015 has been identified as gasoline and appears to be weathered in nature. Elevated PID readings coupled with gray or black staining and petroleum odors were identified in several soil borings ranging from 309 to 1,018 ppm in soils directly above the assumed bedrock surface. VOCs in soils exceeding SSVs were detected in SB-2 and SB-13 with the highest concentrations detected in SB-2 (226,793 µg/kg).

- No groundwater contaminants in any of the discrete interval sampling locations exceeded VGES; however naphthalene exceeded VISV in SB-15 at 6 North Street. These results indicate a low dissolved fraction indicative of an older release.

- Groundwater elevation data indicates that depth to water ranged from 2.95 ft. *above* TOC in MW-1D to 4.70 ft. below TOC in MW-5. Shallow horizontal groundwater flow is to the west-southwest with a hydraulic gradient of 6.2%. A steep upward vertical gradient of up to -54% was identified, which indicates a strong artesian condition in the area likely from a confined or semi-confined aquifer.

- Indoor air testing indicates petroleum compounds in part related to the contaminated groundwater entering the basement at 12 North Street were detected above VISVs. Additional testing following the installation of carbon scrubbers indicates that this preliminary vapor mitigation measure reduced petroleum contaminants below VISVs at the time of testing. However, non-petroleum VOCs that may or may not be related to the contaminated groundwater intruding into the basement remain above VISVs.

- The water intrusion appears to have mobilized pre-existing gasoline contamination from an unknown, potentially historic source due to the apparent weathered nature of the contamination[2]. A likely source of the contamination is Bruno's Auto Repair (former gasoline service station), which appears to be hydraulically upgradient with respect to overburden groundwater flow of the contamination, due to the discovery of weathered gasoline in soils atop bedrock in the 1990s.

- The source of the water intrusion has not been verified, but one possible scenario may be groundwater from a confined or semi-confined aquifer due to strong upward gradients and artesian conditions observed during this ISI. The City of Rutland has conducted its own investigation to determine if any municipal water lines have leaked and possibly contributed to the water intrusions; however, the City has indicated that no water line leaks were discovered in the area capable of producing the amount of water intrusion observed.

[2] This is based on olfactory evidence and a preliminary review of analytical chemistry. Additional testing and/or fingerprinting would be required to further evaluate the age and nature of the contamination.

- The subsurface mechanism at which possible petroleum contamination that may exist at Bruno's may be migrating to the affected properties has not been determined with the current dataset, which includes unsaturated overburden at Bruno's (based on historic data) and between Bruno's and the affected properties. Additional investigation into the bedrock aquifer and potential preferential pathways including subsurface utilities is required to further evaluate this potential connection. The relationship between the bedrock aquifer and the overburden aquifer is not known and was not the objective of this ISI.

Based on the above conclusions ECS has the following recommendations:

- Continue to evaluate vapor impacts to indoor air quality and perform O&M on existing carbon air scrubbers as necessary,

- Sample the monitoring wells for VOCs by EPA Method 8260 to support previous groundwater sampling data. Consider utilizing the low flow methodology so that groundwater chemistry parameters can be collected to supplement observations regarding oxidation-reduction conditions,

- Further evaluate all potential sources of gasoline use in the area through a Phase I Environmental Site Assessment (ESA) or other database sources such as Sanborn Fire Insurance Maps, or City historical records research,

- Conduct soil and groundwater testing of Bruno's property for VOCs to assist in identifying the source of contamination impacting North Street residents. Further define the downgradient limits of dissolved contamination on 16 and 18 North Street properties,

- Perform a geophysical survey utilizing electromagnetic (EM), ground penetrating radar (GPR), and/or other methodologies to comprehensively map underground utilities for the purpose of determining potential preferential pathways for contaminant migration,

- Conduct a bedrock investigation to evaluate the relationship between the bedrock aquifer and overburden aquifer to assist in determining the fate and transport of contaminants,

- Conduct a Corrective Action Feasibility Investigation (CAFI) to evaluate remedial alternatives.

FIGURES

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Poplawski Residence
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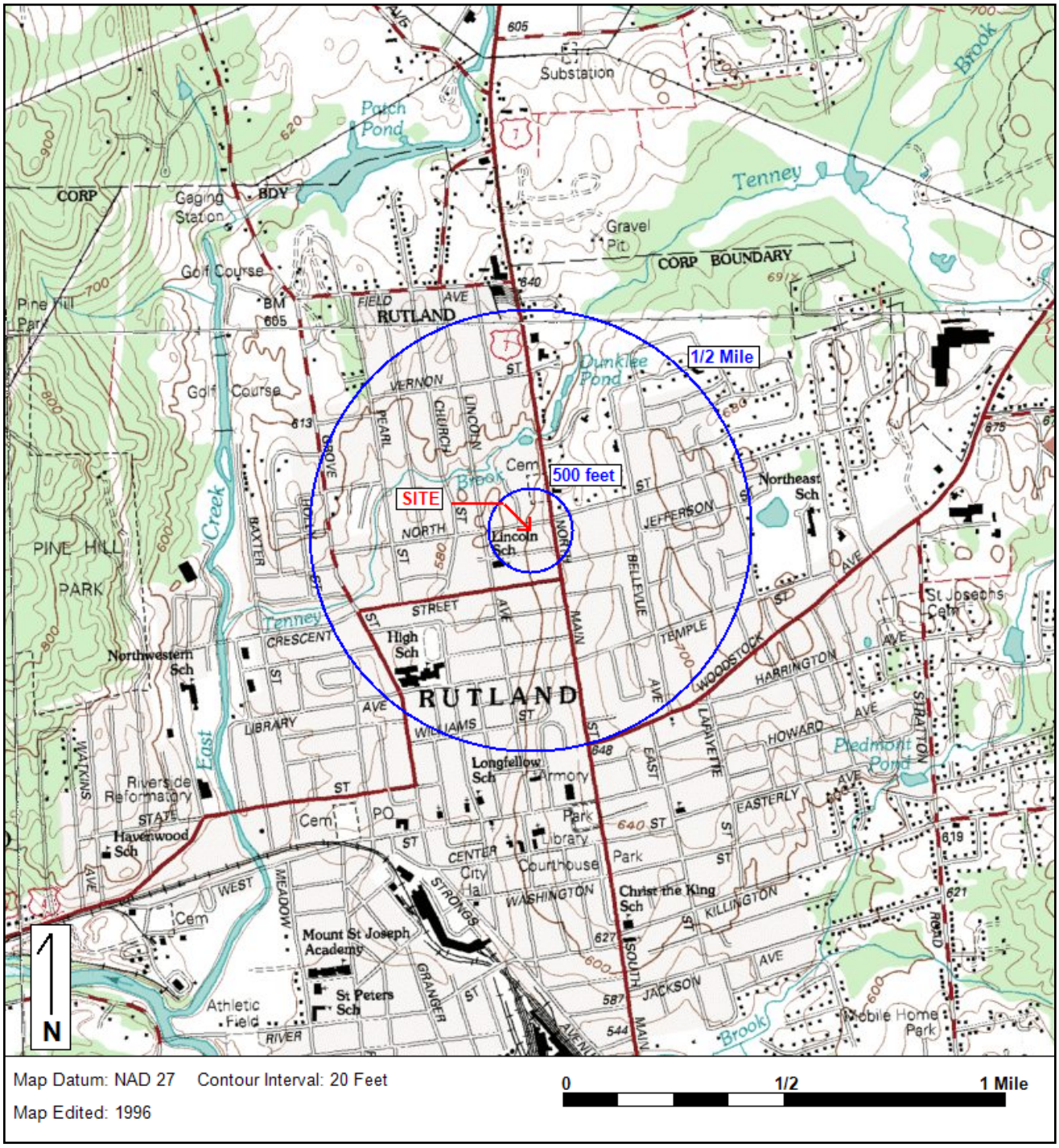
Figure 1: SITE LOCUS



Base Map: U.S. Geological Survey; Quadrangle Location: Rutland, VT

Lat/Lon: 43 37' 4.79" NORTH, 72 58' 30.57" WEST - UTM Coordinates: 18 663379.5 EAST / 4831438 NORTH

Generated By: Carol Farrington

EX. 10,000 GAL. GASOLINE UST (APPROX.)
EX. 8,000 GAL. GASOLINE UST (APPROX.)
(3) 8,000 GAL. GASOLINE USTs (APPROX.)
MW-1
MW-2
MW-3
EXISTING PUMP ISLAND
145 N. MAIN ST #93-1404 #2009-3936 MAC'S MARKET
148 N. MAIN ST
141 N. MAIN ST
140 N. MAIN ST
138 N. MAIN ST
137 N. MAIN ST #99-2649 BRUNO'S AUTO REPAIR
135 N. MAIN ST
NORTH STREET EXTENSION
NORTH MAIN STREET
NORTH STREET
MELROSE AVENUE
25 NORTH ST
23 NORTH ST
24 NORTH ST
20 NORTH ST
19 NORTH ST
18 NORTH ST
17 NORTH ST
16 NORTH ST
15 NORTH ST
14 NORTH ST
13 NORTH ST
12 NORTH ST
11 NORTH ST
9 NORTH ST
7 NORTH ST
6B NORTH ST
6 NORTH ST
118 LINCOLN AVE
116 LINCOLN AVE
25 MELROSE AVE
23 MELROSE AVE
21 MELROSE AVE
19 MELROSE AVE
17 MELROSE AVE
13,15 MELROSE AVE
11 MELROSE AVE
UNKNOWN SERVICE LINE
UNKNOWN CONNECTION
GROUNDWATER SEEP AREA
RETAINING WALL DISCHARGE
ELEVATION BENCHMARK
NGS CONTROL POINT AE6524
BOLT IN SW CORNER OF CONCRETE
UTILITY ACCESS PAD
ELEV: 632.84'
FORMER GASOLINE USTs (APPROX.)
EXISTING #2 FUEL OIL UST (APPROX.)
FORMER PUMP ISLAND (APPROX.)
FORMER WASTE OIL UST (APPROX.)
EXISTING 4,000 GAL. #2 FUEL OIL UST (APPROX.)
FORMER 8,000 GAL. #2 FUEL OIL UST (CLOSED IN PLACE, FILLED WITH SAND, 1990, APPROX.)
A
A'
B
B'
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7/MW-7
SB-8
SB-9
SB-10
SB-11
SB-12/MW-8
SB-13
SB-14
SB-15/MW-5
SB-16
SB-17
SB-18
SB-19
SB-20/MW-4
MW-3
MW-6
MW-1D
MW-15
MW-2S
MW-2D
12 NORTH ST SG1
12 NORTH ST SG2
(SB-1)
(SB-2)
(SB-3)
(SB-4)
(SB-5)
(SB-6)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

LEGEND

- PROPERTY LINE
- GROUND ELEVATION CONTOUR
- W — WATER LINE
- S — SEWER LINE
- ST — STORMWATER LINE
- STORMWATER OVERLAND FLOW
- SB — SOIL BORING
- MW — MONITORING WELL
- SUB-SLAB SOIL SAMPLE
- (SB) — FORMER SOIL BORING (JUNE 2000)
- WATER SAMPLE LOCATION (7/28/15)
- ANOMALOUS MAGNETOMETER READINGS
- GEOLOGIC CROSS SECTION
- HYDRANT
- WATER VALVE
- WATER CURB BOX/SHUTOFF
- SEWER MANHOLE
- STORM MANHOLE
- CATCH BASIN (STORMWATER)
- CATCH BASIN (COMBINED)

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY, PROPERTY LINES ARE FROM TAX MAPS AND ARE APPROXIMATE.
2. UTILITY INFORMATION IS FROM CITY OF RUTLAND GIS.
3. MONITORING WELLS AND SOIL BORINGS WERE SURVEYED WITH A TOTAL STATION ON 9/17/15.

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PROJECT:
NORTH ST./MELROSE AVE.
RUTLAND, VERMONT

TITLE:
SITE PLAN

CLIENT:
VT DEC

COMPUTER CADFILE : RUTLAND.DWG

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
S.M.S.	S.M.S.	E.U.	E.U.
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NOTED	10-6-15	08-223948.00	2

EX. 10,000 GAL. GASOLINE UST (APPROX.)
EX. 8,000 GAL. GASOLINE UST (APPROX.)
(3) 8,000 GAL. GASOLINE USTs (APPROX.)
8.4': BRL MW-1
15': BRL MW-2
13': BRL MW-3
145 N. MAIN ST DATA IS FROM APRIL 2010 INVESTIGATION BY OTHERS
EXISTING PUMP ISLAND
145 N. MAIN ST #93-1404 #2009-3936 MAC'S MARKET
148 N. MAIN ST
25 NORTH ST
23 NORTH ST
19 NORTH ST
17 NORTH ST
15 NORTH ST
11 NORTH ST
9 NORTH ST
7 NORTH ST
141 N. MAIN ST
140 N. MAIN ST
138 N. MAIN ST
UNKNOWN SERVICE LINE
NORTH STREET EXTENSION
NORTH STREET
SB-19
SB-20/MW-4
SB-1
SB-2
SB-3
8': BRL
5': BRL SB-14
3': BRL SB-4
MW-6
SB-13 6': 594
3': BRL SB-5
FORMER GASOLINE USTs (APPROX.)
EXISTING #2 FUEL OIL UST (APPROX.)
FORMER PUMP ISLAND (APPROX.)
137 N. MAIN ST DATA IS FROM JUNE 2000 INVESTIGATION BY OTHERS (SAMPLE DEPTH UNKNOWN)
ELEVATION BENCHMARK NGS CONTROL POINT AE6524 BOLT IN SW CORNER OF CONCRETE UTILITY ACCESS PAD ELEV: 632.84'
14 NORTH ST
16 NORTH ST
18 NORTH ST
20 NORTH ST
24 NORTH ST
12 NORTH ST
6B NORTH ST
6 NORTH ST
137 N. MAIN ST #99-2649 BRUNO'S AUTO REPAIR
12 NORTH ST SG1 3,971
12 NORTH ST SG2 8,402
SB-8
MW-2S
MW-2D
SB-1
100
1,000
10,000
100,000
13': 25,797
SB-2
MW-3
SB-9
8': 1,972
16': 700
17': 2,200
SB-15/MW-5
SB-7/MW-7
8': BRL
10': BRL
SB-16
SB-6
11': BRL
FORMER WASTE OIL UST (APPROX.)
NORTH MAIN STREET
MW-15
MW-1D
SB-17
18': BRL
SB-18
SB-10
GROUNDWATER SEEP AREA
SB-11
4': BRL
135 N. MAIN ST
UNKNOWN CONNECTION
SB-12/MW-8
15': BRL
118 LINCOLN AVE
25 MELROSE AVE
116 LINCOLN AVE
23 MELROSE AVE
21 MELROSE AVE
19 MELROSE AVE
17 MELROSE AVE
13,15 MELROSE AVE
11 MELROSE AVE
RETAINING WALL DISCHARGE
EXISTING 4,000 GAL. #2 FUEL OIL UST (APPROX.)
FORMER 8,000 GAL. #2 FUEL OIL UST (CLOSED IN PLACE, FILLED WITH SAND, 1990, APPROX.)
MELROSE AVENUE

NOTES:

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3. MONITORING WELLS AND SOIL BORINGS WERE SURVEYED WITH A TOTAL STATION ON 9/17/15.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

LEGEND

- PROPERTY LINE
- GROUND ELEVATION CONTOUR
- W — WATER LINE
- S — SEWER LINE
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- SUB-SLAB SOIL SAMPLE
- (SB) — FORMER SOIL BORING (JUNE 2000)
- WATER SAMPLE LOCATION (7/28/15)
- ANOMALOUS MAGNETOMETER READINGS
- HYDRANT
- WATER VALVE
- WATER CURB BOX/SHUTOFF
- S — SEWER MANHOLE
- D — STORM MANHOLE
- CATCH BASIN (STORMWATER)
- CATCH BASIN (COMBINED)

SOIL SAMPLING EXPLANATION

- SOIL CONTAMINANT CONCENTRATION CONTOUR
- 8': SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
- 594 TOTAL VOLATILE ORGANIC COMPOUNDS (VOCs) IN SOIL (ug/kg)
- BRL: BELOW REPORTABLE LIMIT

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PROJECT:
NORTH ST./MELROSE AVE.
RUTLAND, VERMONT

TITLE: SOIL CONTAMINANT DISTRIBUTION MAP (SEPTEMBER 2015)

CLIENT: VT DEC

COMPUTER CADFILE : RUTLAND.DWG

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
S.M.S.	S.M.S.	E.U.	E.U.
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NOTED	10-6-15	08-223948.00	3

EX. 10,000 GAL. GASOLINE UST (APPROX.)
EX. 8,000 GAL. GASOLINE UST (APPROX.)
(3) 8,000 GAL. GASOLINE USTs (APPROX.)
MW-1
MW-2
MW-3
EXISTING PUMP ISLAND
145 N. MAIN ST #93-1404 #2009-3936 MAC'S MARKET
148 N. MAIN ST
141 N. MAIN ST
140 N. MAIN ST
138 N. MAIN ST
137 N. MAIN ST #99-2649 BRUNO'S AUTO REPAIR
135 N. MAIN ST
NORTH MAIN STREET
NORTH STREET EXTENSION
NORTH STREET
MELROSE AVENUE
25 NORTH ST
23 NORTH ST
24 NORTH ST
20 NORTH ST
19 NORTH ST
18 NORTH ST
17 NORTH ST
16 NORTH ST
15 NORTH ST
14 NORTH ST
11 NORTH ST
9 NORTH ST
7 NORTH ST
6B NORTH ST
6 NORTH ST
118 LINCOLN AVE
116 LINCOLN AVE
25 MELROSE AVE
23 MELROSE AVE
21 MELROSE AVE
19 MELROSE AVE
17 MELROSE AVE
13,15 MELROSE AVE
11 MELROSE AVE
UNKNOWN SERVICE LINE
UNKNOWN CONNECTION
GROUNDWATER SEEP AREA
RETAINING WALL DISCHARGE
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7/MW-7
SB-8
SB-9 5-6': BRL
SB-10 14-15': 63.8
SB-11 3.5-4.5': BRL
SB-12/MW-8 17-18': 0.36
SB-13
SB-14
SB-15/MW-5 16-17': 73.3
SB-16
SB-17 18-19': 0.43
SB-18 18-19': 0.42
SB-19
SB-20/MW-4
MW-5
MW-2D
MW-1D
MW-3
9-10': 293.3
0.4.0
BRL
592
596
600
604
608
612
616
SAMPLES COLLECTED JULY 2015 AUGUST 2015 SEPT 2015
FORMER GASOLINE USTs (APPROX.)
EXISTING #2 FUEL OIL UST (APPROX.)
FORMER PUMP ISLAND (APPROX.)
FORMER WASTE OIL UST (APPROX.)
EXISTING 4,000 GAL. #2 FUEL OIL UST (APPROX.)
FORMER 8,000 GAL. #2 FUEL OIL UST (CLOSED IN PLACE, FILLED WITH SAND, 1990, APPROX.)
ELEVATION BENCHMARK
NGS CONTROL POINT AE6524
BOLT IN SW CORNER OF CONCRETE UTILITY ACCESS PAD
ELEV: 632.84'

NOTES:

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GRAPHIC SCALE

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(IN FEET)
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- (SB) — FORMER SOIL BORING (JUNE 2000)
- WATER SAMPLE LOCATION (7/28/15)
- ANOMALOUS MAGNETOMETER READINGS
- HYDRANT
- WATER VALVE
- WATER CURB BOX/SHUTOFF
- SEWER MANHOLE
- STORM MANHOLE
- CATCH BASIN (STORMWATER)
- CATCH BASIN (COMBINED)

GROUNDWATER SAMPLING EXPLANATION

- GROUNDWATER CONTAMINANT CONCENTRATION CONTOUR
- 17-18': SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
- 0.36 PETROLEUM VOCs IN GROUNDWATER (ug/L)
- BRL: BELOW REPORTABLE LIMIT

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PROJECT:
NORTH ST./MELROSE AVE.
RUTLAND, VERMONT

TITLE: GROUNDWATER CONTAMINANT DISTRIBUTION MAP (SEPTEMBER 2015)

CLIENT: VT DEC

COMPUTER CADFILE : RUTLAND.DWG

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
S.M.S.	S.M.S.	E.U.	E.U.
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NOTED	10-6-15	08-223948.00	4

EX. 10,000 GAL. GASOLINE UST (APPROX.)
EX. 8,000 GAL. GASOLINE UST (APPROX.)
(3) 8,000 GAL. GASOLINE USTs (APPROX.)
MW-1
MW-2
MW-3
EXISTING PUMP ISLAND
145 N. MAIN ST #93-1404 #2009-3936 MAC'S MARKET
148 N. MAIN ST
25 NORTH ST
23 NORTH ST
19 NORTH ST
17 NORTH ST
15 NORTH ST
11 NORTH ST
9 NORTH ST
7 NORTH ST
141 N. MAIN ST
UNKNOWN SERVICE LINE
NORTH STREET EXTENSION
140 N. MAIN ST
NORTH STREET
SB-20/MW-4 602.69
603
604
605
606
607
SB-3
SB-14
SB-4
MW-6 606.88
ELEVATION BENCHMARK NGS CONTROL POINT AE6524 BOLT IN SW CORNER OF CONCRETE UTILITY ACCESS PAD ELEV: 632.84'
FORMER GASOLINE USTs (APPROX.)
EXISTING #2 FUEL OIL UST (APPROX.)
FORMER PUMP ISLAND (APPROX.)
138 N. MAIN ST
14 NORTH ST 603.99 606.25
SB-8
MW-2S
MW-2D
12 NORTH ST SG1
12 NORTH ST SG2
SB-1
12 NORTH ST
6B NORTH ST
SB-13
SB-5
6 NORTH ST
137 N. MAIN ST #99-2649 BRUNO'S AUTO REPAIR
16 NORTH ST
18 NORTH ST
20 NORTH ST
24 NORTH ST
SB-18
603.11
MW-1S
MW-1D
SB-17
605.79
SB-10
SB-9
SB-2
MW-3 607.28
SB-7/MW-7 608.94
SB-15/MW-5 606.04
SB-16
SB-6
FORMER WASTE OIL UST (APPROX.)
NORTH MAIN STREET
GROUNDWATER SEEP AREA
135 N. MAIN ST
SB-11
UNKNOWN CONNECTION
SB-12/MW-8 595.72
596
600
118 LINCOLN AVE
25 MELROSE AVE
RETAINING WALL DISCHARGE
EXISTING 4,000 GAL. #2 FUEL OIL UST (APPROX.)
FORMER 8,000 GAL. #2 FUEL OIL UST (CLOSED IN PLACE, FILLED WITH SAND, 1990, APPROX.)
116 LINCOLN AVE
23 MELROSE AVE
21 MELROSE AVE
19 MELROSE AVE
17 MELROSE AVE
13,15 MELROSE AVE
11 MELROSE AVE
MELROSE AVENUE

NOTES:

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GRAPHIC SCALE

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(IN FEET)
1 inch = 30 ft.

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- HYDRANT
- WATER VALVE
- WATER CURB BOX/SHUTOFF
- S — SEWER MANHOLE
- ST — STORM MANHOLE
- CATCH BASIN (STORMWATER)
- CATCH BASIN (COMBINED)

GROUNDWATER ELEVATION EXPLANATION

- GROUNDWATER CONTOUR
- 595.72 — GROUNDWATER ELEVATION (FT.)
- GROUNDWATER FLOW DIRECTION

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PROJECT:
NORTH ST./MELROSE AVE.
RUTLAND, VERMONT

TITLE: GROUNDWATER ELEVATION CONTOUR MAP (10/1/15)

CLIENT: VT DEC

COMPUTER CADFILE : RUTLAND.DWG

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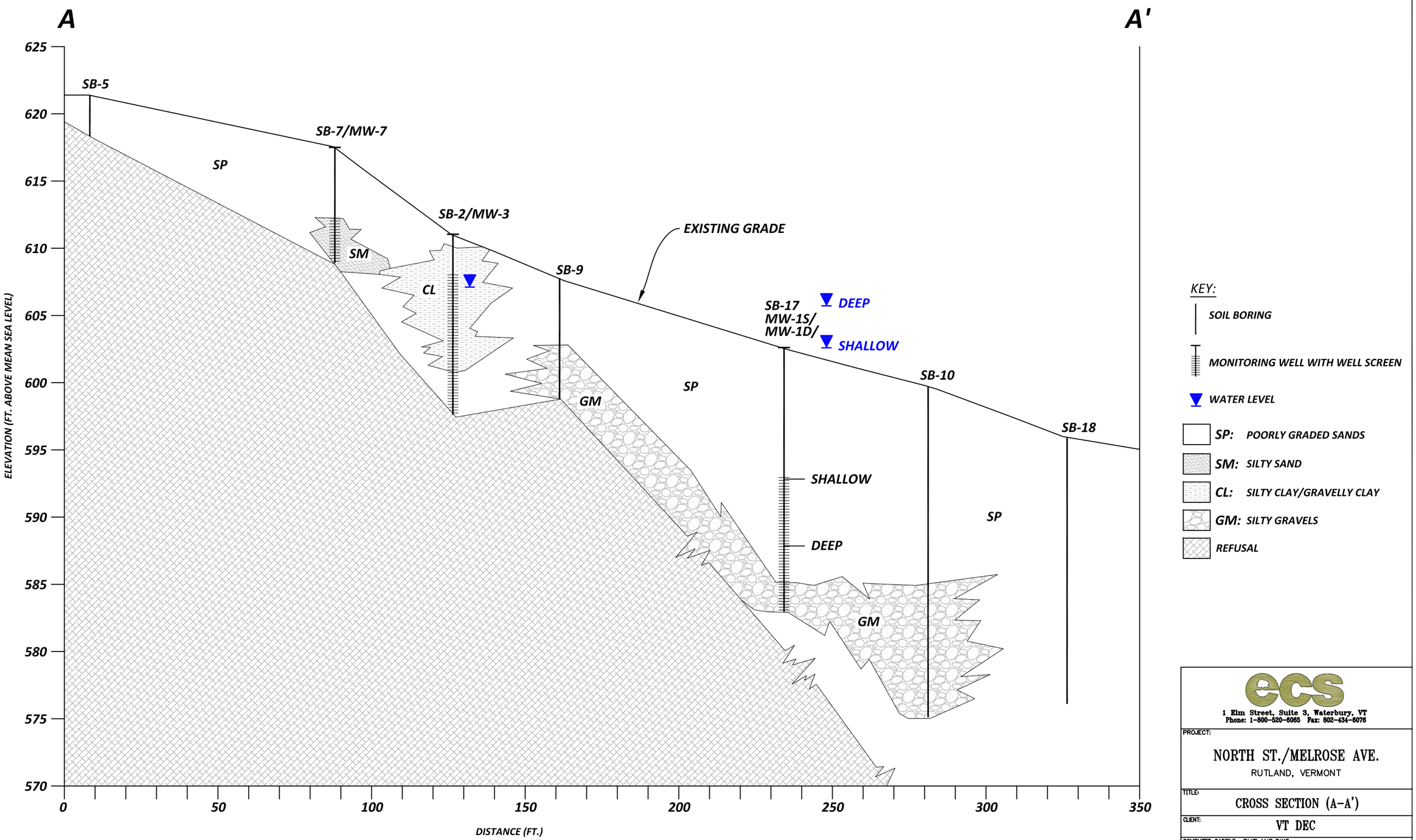
S.M.S.	S.M.S.	E.U.	E.U.
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NOTED	10-6-15	08-223948.00	5



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PROJECT:

NORTH ST./MELROSE AVE.
RUTLAND, VERMONT

TITLE:

CROSS SECTION (A-A')

CLIENT:

VT DEC

COMPUTER CADFILE : RUTLAND.DWG

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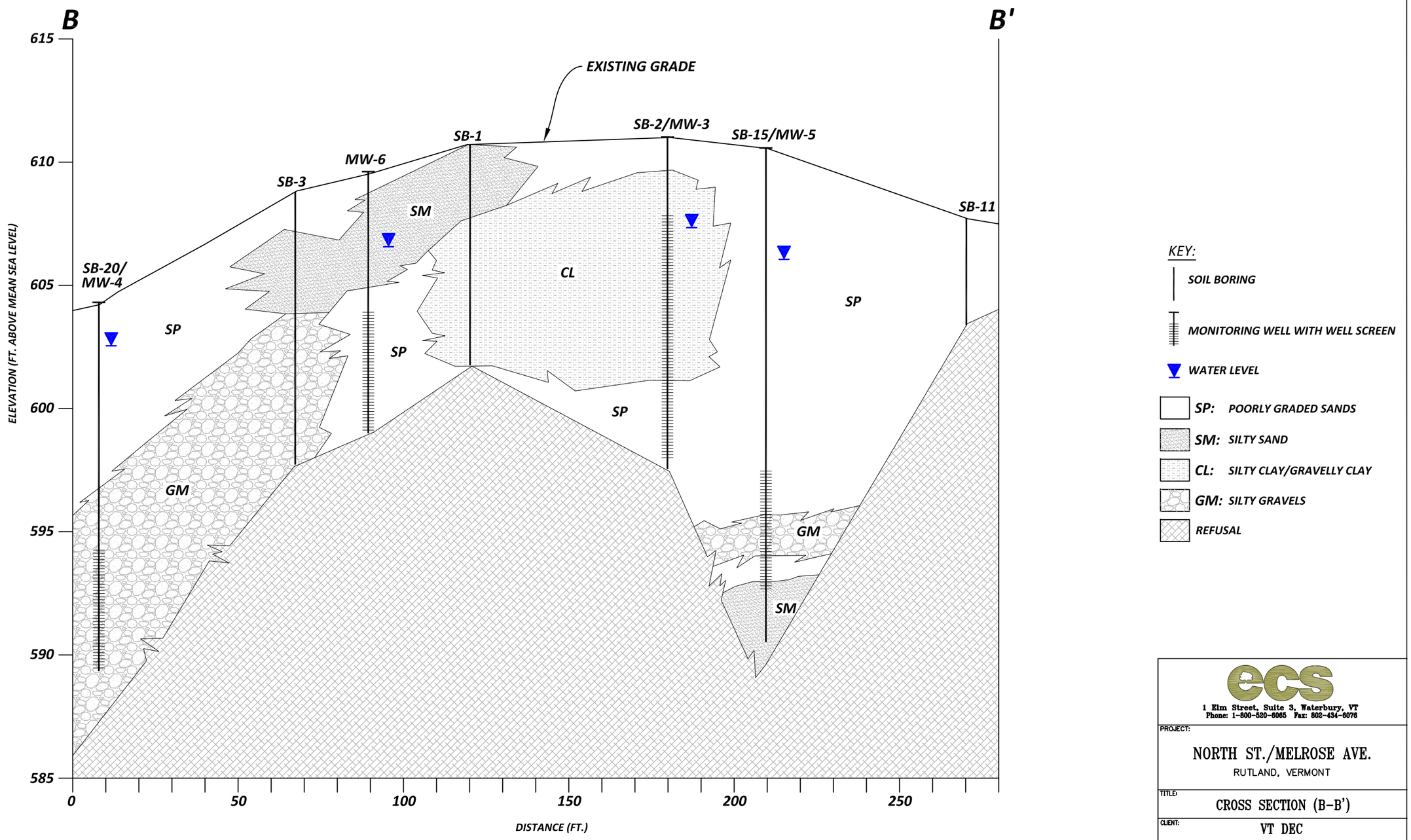
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NOTED	10-6-15	08-223948.00	6



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PROJECT:

NORTH ST./MELROSE AVE.
RUTLAND, VERMONT

TITLE:

CROSS SECTION (B-B')

CLIENT:

VT DEC

COMPUTER CADFILE : RUTLAND.DWG

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S.M.S.		E.U.	E.U.
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NOTED	10-6-15	08-223948.00	7

TABLES

Table 1.
Groundwater Quality Results
North Street/Melrose Avenue, Rutland, VT

				MTBE	Benzene	Toluene	Ethyl benzene	Xylenes	TMBs	Naph thalene	n-Butyl benzene	sec-Butyl benzene	4-Isopropyl toluene	Isopropyl benzene	n-Propyl benzene	TAME	Total Petrol VOCs	Chloro form	Bromodi chloro methane	Total Non Petrol VOCs	TPH
			VGES:	**40**	**5**	**1000**	**700**	**10,000**	**350**	**20**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**80**		**NS**	**NS**
			VI Screening Values:	**NS**	**5.2**	**1104.75**	**310.3**	**363.64**	**NS**	**15.19**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**2.53**	**0.86**	**NS**	**NS**
Boring ID	**Sample ID**	**Sample Depth (feet)**	**Sample Date**																		
NA	9 North Basement	surface	7/28/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL<2.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL	**9.7**	**0.5**	**10.2**	**0.8**
	12 North Sump	surface	7/28/15	BRL<1.0	BRL<1.0	**28.4**	**26**	**414.20**	**369.6**	**91.2**	**10.9**	**4.6**	**3.2**	**14.6**	**32**	BRL<1.0	**65.3**	**22.4**	BRL<0.5	**22.4**	**10.7**
			8/24/15	BRL<5.0	BRL<5.0	**22.5**	**13.6**	**514**	**471**	**89.2**	**9.6**	**5.6**	BRL<5.0	**12.9**	**20**	BRL<5.0	**48.1**	**17.6**	BRL<2.5	**17.6**	**7.2**
NA			9/3/15	BRL<10.0	BRL<10.0	**38.1**	**80.6**	**1,020**	**1,021**	**232**	**23**	**38.8**	BRL<10.0	**37.5**	**66.1**	BRL<10.0	**165.4**	**15.2**	BRL<5.0	**15.2**	NS
NA	14 North Yard	surface	7/28/15	BRL<1.0	BRL<1.0	BRL<1.0	**5.4**	**35.3**	**137**	**19.6**	**16.7**	**4.9**	**6.0**	**3.5**	**8.6**	**24.3**	**64.0**	**24.3**	BRL<1.0	**24.3**	**7.2**
NA	17 Melrose Garage	surface	7/28/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL<2.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL	**32.6**	**1.8**	**34.4**	**0.5**
SB-1	GW01	6-7	9/8/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	BRL	NS	NS	NS	NS
SB-2	GW02	9-10	9/8/15	BRL<1.0	BRL<1.0	**1.53**	**6.11**	**35.66**	**237.6**	**12.4**	NS	NS	NS	NS	NS	NS	**293.3**	NS	NS	NS	NS
SB-8	GW08	14-15	9/9/15	BRL<1.0	BRL<1.0	**0.48**	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	**0.48**	NS	NS	NS	NS
SB-9	GW09	5-6	9/9/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	BRL	NS	NS	NS	NS
SB-10	GW10	14-15	9/9/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	**0.58**	**63.2**	**2.07**	NS	NS	NS	NS	NS	NS	**63.8**	NS	NS	NS	NS
SB-11	GW11	3.5-4.5	9/9/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	BRL	NS	NS	NS	NS
SB-12	GW12	17-18	9/9/15	BRL<1.0	**0.36**	BRL<1.0	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	**0.36**	NS	NS	NS	NS
SB-15	GW15	16-17	9/10/15	BRL<1.0	BRL<1.0	**1.94**	**13.7**	**61.79**	**136.7**	**17.8**	NS	NS	NS	NS	NS	NS	**231.9**	NS	NS	NS	NS
SB-17	GW17	18-19	9/10/15	BRL<1.0	BRL<1.0	**0.43**	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	**0.43**	NS	NS	NS	NS
SB-18	GW18	18-19	9/10/15	BRL<1.0	BRL<1.0	**0.42**	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	**0.42**	NS	NS	NS	NS
QA/QC Samples																					
NA	Trip Blank	NA	7/28/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL<2.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL	BRL<1.0	BRL<0.5	BRL	NS
NA	Trip Blank	NA	8/26/15	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL<2.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL	BRL<1.0	BRL<0.5	BRL	NS
SB-17	GWDuplicate (GW17)	18-19	9/10/15	BRL<1.0	BRL<1.0	**0.50**	BRL<1.0	BRL<2.0	BRL<1.0	BRL<1.0	NS	NS	NS	NS	NS	NS	**0.50**	NS	NS	NS	NS
NA	RPD (%)	NA		--	--	3.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES:
All samples analyzed by US EPA Method 8260 and results provided in micrograms per liter (µg/l)
TPH - Total Petroleum Hydro carbons, results provided in millograms per liter (mg/l)
BRL = below reporting limit
TMBs = trimethylbenzenes
TAME = Tert amyl methyl ether
VGES = Vermont Groundwater Enforcement Standards
VI Screening Values = State of Vermont Investigation and Remediation of Contaminated Properties Proceedure (IROCPP) Table C.7.
Bold values exceed reporting limit while bold and shaded values exceed VGES
The sample 12 North Sump contained an E flag for naphthalene, TMBs, and xylenes, and 14 North Yard contained E flag for TMBs on 7/28/15
Some analytes for the the GW series samples contained the following flags: Q = associated with QC failure, and J = estimated value; as specified in Stone Env. Report
NA = not applicable, NS = no standard available or not sampled

TABLE 2
SOIL ANALYTICAL DATA
North Street/Melrose Avenue, Rutland, VT

				MTBE	Benzene	Toluene	Ethyl benzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethyl benzene	1,2,4-Trimethyl benzene	Naph thalene	Total VOCs
		VT Soil Screening Values (SSV)	**VDH Values**	647,000	471	--	--	--	--	35,100	41,600	1,530	
			Residential Soil	*47,000*	*1,200*	*4,900,000*	*5,800*	*550,000*	*650,000*	*780,000*	*58,000*	*3,800*	
			Industrial Soil	***210,000***	***5,100***	***47,000,000***	***25,000***	***2,400,000***	***2,800,000***	***12,000,000***	***240,000***	***17,000***	
Boring ID	Sample ID	Sample Date	Sample Depth (feet)										
SB-2	SO-02	09/08/15	13	BRL<25.2	BRL<25.2	**68.9**	**2,550**	**16,200**	**674**	**61,200**	***136,000***	***10,100***	**226,793**
SB-3	SO-03	09/08/15	8	BRL<25.2	BRL<25.2	BRL<25.2	BRL<25.2	BRL<25.2	BRL<25.2	BRL<25.2	BRL<25.2	BRL<25.2	BRL
SB-4	SO-04	09/08/15	3	BRL<23.9	BRL<23.9	BRL<23.9	BRL<23.9	BRL<23.9	BRL<23.9	BRL<23.9	BRL<23.9	BRL<23.9	BRL
SB-5	SO-05	09/08/15	3	BRL<25.4	BRL<25.4	BRL<25.4	BRL<25.4	BRL<25.4	BRL<25.4	BRL<25.4	BRL<25.4	BRL<25.4	BRL
SB-6	SO-06	09/08/15	11	BRL<26.2	BRL<26.2	BRL<26.2	BRL<26.2	BRL<26.2	BRL<26.2	BRL<26.2	BRL<26.2	BRL<26.2	BRL
SB-7	SO-07	09/09/15	8	BRL<25.1	BRL<25.1	BRL<25.1	BRL<25.1	BRL<25.1	BRL<25.1	BRL<25.1	BRL<25.1	BRL<25.1	BRL
SB-9	SO-09	09/09/15	8	BRL<24.5	BRL<24.5	BRL<24.5	**19.6**	**171**	**35.7**	**2,020**	**4,860**	**216**	**7,322**
SB-11	SO-11	09/09/15	4	BRL<23.7	BRL<23.7	BRL<23.7	BRL<23.7	BRL<23.7	BRL<23.7	BRL<23.7	BRL<23.7	BRL<23.7	BRL
SB-12	SO-12	09/09/15	15	BRL<23.6	BRL<23.6	BRL<23.6	BRL<23.6	BRL<23.6	BRL<23.6	BRL<23.6	BRL<23.6	BRL<23.6	BRL
SB-13	SO-13	09/10/15	6	BRL<26.2	**23.8**	**45.5**	**13.4**	**149**	**78.0**	**75.4**	**183**	***28,800***	**29,368**
SB-14	SO-14	09/10/15	5	BRL<24.4	BRL<24.4	BRL<24.4	BRL<24.4	BRL<24.4	BRL<24.4	BRL<24.4	BRL<24.4	BRL<24.4	BRL
SB-15	SO-15	09/10/15	16	BRL<18.8	BRL<18.8	BRL<18.8	**14.4**	**59.6**	**4.88**	**93.2**	**504**	**24.2**	**700**
			17	BRL<25.7	BRL<25.7	BRL<25.7	**20.8**	**145**	**6.42**	**547**	**1,450**	**130**	**2,299**
SB-16	SO-16	09/10/15	10	BRL<26.0	BRL<26.0	BRL<26.0	BRL<26.0	BRL<26.0	BRL<26.0	BRL<26.0	BRL<26.0	BRL<26.0	BRL
SB-17	SO-17	09/10/15	18	BRL<20.9	BRL<20.9	BRL<20.9	BRL<20.9	BRL<20.9	BRL<20.9	BRL<20.9	BRL<20.9	BRL<20.9	BRL
NA	12 North SO-01	09/09/15	sub-slab	BRL<24.6	BRL<24.7	**38.7**	**41.7**	**797**	**243**	**539**	**1,750**	**564**	**3,973**
NA	12 North SO-02	09/09/15	sub-slab	BRL<26.0	BRL<26.0	**68.4**	**106**	**3,060**	**692**	**936**	**2,490**	**1,140**	**8,492**

Soil quality results provided in µg/kg = micrograms per kilogram or parts per billion (ppb), unless otherwise noted
VOCs = volatile organic compounds, analyzed by US EPA Method 8260
MTBE = methyl tert butyl ether
BRL< value = Not detected at or above stated laboratory reporting limit
Standards include VT Soil Screening Values set forth in VT DEC Investigation and Remediation of Contaminated Properties (IROCP, April 2012), including
VDH Values = VT Department of Health Values, and
Residential and Industrial Soils = most current EPA Regional Screening Levels (RSL) for Residential and Industrial Soils (June 2015)
Bold values indicate detection above laboratory reporting limit
Light shaded values exceed VDH
Light shaded and italic values exceed RSL residential soils
Dark shaded and italic values exceed RSL industrial soils
-- = no standard
Some analytes for the the GW series samples contained the following flags: Q = associated with QC failure, and J = estimated value; as specified in Stone Env. Report

TABLE 3
GROUND WATER ELEVATION CALCULATIONS

NORTH STREET/MELROSE AVENUE, RUTLAND, VT

Monitoring Date: 01 October 2015

Well I. D.	Top of Casing Elevation	Depth to Water (feet, TOC)	Ground Water Elevation
MW-1S	602.78	-0.33	603.11
MW-1D	602.84	-2.95	605.79
MW-2S	607.48	3.49	603.99
MW-2D	607.54	1.29	606.25
MW-3	610.72	3.44	607.28
MW-4	604.38	1.69	602.69
MW-5	610.74	4.70	606.04
MW-6	609.84	2.96	606.88
MW-7	617.44	DRY	<608.94
MW-8	598.94	3.22	595.72

NOTES: A 5.125 ft riser was utilized to measure the potentiometric surface above ground in MW-1S/D

Table 4. Indoor Air Analytical Results
Poplawski Residence, Rutland VT

Sample Location Analyte (TO-15) Sample Date	IA-Basement		IA-Floor1		IA-Floor2		Vermont Vapor Intrusion Screening Values Indoor Air Concentration µg/m3
	8/19/2015	9/3/2015	8/19/2015	9/3/2015	8/19/2015	9/3/2015	
Dichlorodifluoromethane (Freon 12)	**2.08**	**3.46**	<0.49	**3.96**	<0.49	**3.66**	200
Acetone	<1.19	**23.74**	<1.19	**23.10**	**20.01**	**31.84**	315
Trichlorofluoromethane (Freon 11)	**1.97**	**2.14**	**1.80**	**1.74**	**2.14**	**2.19**	562
Ethanol	**7.79**	**37.52**	**145.94**	**352.58**	**422.35**	**260.20**	--
Methylene Chloride	**3.58** [B]	**4.34** [B]	**2.57** [B]	**3.61** [B]	**2.78** [B]	**2.01** [B]	2.1
1,1,2-Trichlorotrifluoroethane (Freon 113)	**1.00**	**1.15**	**0.92**	**0.84**	**0.92**	**1.00**	--
Carbon Disulfide	<1.56	**2.18**	**1.96**	<1.56	<1.56	**5.38**	657
Isopropyl Alcohol	**3.24**	**2.94**	**6.90**	**4.12**	**7.46**	**2.40**	--
2-Butanone (MEK)	**4.01**	**2.48**	**3.33**	**4.10**	**3.72**	**5.40**	5,000
Hexane	**74.39**	**25.81**	**16.89**	**6.31**	**10.47**	**12.41**	7,000
Ethyl Acetate	**31.49**	**24.79**	**69.90**	**95.13**	**32.83**	**11.89**	--
Chloroform	**85.17**	**11.34**	**8.32**	**1.90**	**5.89**	**1.51**	0.38
Tetrahydrofuran	<0.29	**4.48**	**0.56**	**1.09**	<0.29	**0.88**	--
1,2-Dichloroethane	**1.90**	<0.4	**1.01**	<0.4	<0.4	<0.4	0.038
1,1,1-Trichloroethane	<0.55	**2.24**	<0.55	**0.82**	<0.55	<0.55	1000
Benzene	**3.13**	**0.83**	**1.24**	**1.40**	**0.86**	**0.83**	1.18
Carbon Tetrachloride	**0.82**	**1.07**	**0.88**	**0.88**	**1.01**	**1.01**	0.41
Cyclohexane	**61.27**	**7.13**	**3.17**	**2.34**	**2.58**	**0.76**	82
n-Heptane	<0.41	<0.41	<0.41	**0.41**	<0.41	<0.41	--
4-Methyl-2-pentanone (MIBK)	<0.41	**1.31**	**0.61**	**0.61**	**1.19**	<0.41	--
Toluene	**61.33**	**4.70**	**10.39**	**7.86**	**6.47**	**2.14**	300
2-Hexanone (MBK)	<0.41	**1.27**	**0.45**	<0.41	**0.45**	**0.45**	--
Ethylbenzene	**33.77**	**2.04**	**1.91**	**0.69**	**1.30**	**0.48**	100
m,p-Xylene	**520.25**	**23.63**	**20.64**	**3.60**	**14.48**	**2.60**	100- total
o-Xylene	**168.21**	**8.63**	**7.28**	**1.47**	**4.86**	**0.95**	
Styrene	<0.43	<0.43	**0.68**	<0.43	**0.64**	<0.43	100
Isopropylbenzene	**34.86**	**1.62**	**1.13**	<0.49	**0.79**	<0.49	--
1,3,5-Trimethylbenzene	**111.11**	**9.14**	**5.95**	**1.03**	**4.28**	**0.79**	--
4-Ethyltoluene	**154.86**	**8.95**	**6.88**	**1.03**	**4.97**	**0.79**	--
1,2,4-Trimethylbenzene	**203.53**	**24.19**	**12.24**	**2.85**	**9.54**	**2.36**	--
4-Isopropyltoluene	**6.06**	<0.54	**1.56**	**0.91**	**1.82**	<0.54	--
n-Butylbenzene	**17.40**	**1.59**	**0.88**	<0.55	**0.66**	<0.55	--
1,2,4-Trichlorobenzene	<0.74	**0.89**	<0.74	<0.74	<0.74	<0.74	--

Notes:

Shaded area represents an exceedance in the screening value

Bold lettering indicates a detection

µg/m3 - micrograms per cubic meter

Values in italics indicate laboratory reporting limits exceed VI screening value

-- = no applicable standard

B = Analyte is found in the associated blank as well as in the sample (CLP B-flag)

APPENDIX A

LABORATORY ANALYTICAL REPORTS

Report Date:
05-Aug-15 11:01

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Environmental Compliance Services
1 Elm St. Suite 3
Waterbury, VT 05676
Attn: Erik Urch

Project: Poplawski Residence - Rutland, VT
Project #: 08-223948.00

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC10616-01	Trip Blank	Deionized Water	28-Jul-15 08:00	30-Jul-15 10:35
SC10616-02	17 Melrose Garage	Ground Water	28-Jul-15 11:45	30-Jul-15 10:35
SC10616-03	12 North Sump	Ground Water	28-Jul-15 12:10	30-Jul-15 10:35
SC10616-04	9 North Basement	Ground Water	28-Jul-15 12:30	30-Jul-15 10:35
SC10616-05	14 North Yard	Ground Water	28-Jul-15 12:45	30-Jul-15 10:35

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00098
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 38 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 5.8 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 8100Mod.

Samples:

SC10616-02 *17 Melrose Garage*

Elevated Reporting Limits due to limited sample volume.

SC10616-04 *9 North Basement*

Elevated Reporting Limits due to limited sample volume.

SW846 8260C

Calibration:

1506044

Analyte quantified by quadratic equation type calibration.

1,1,1-Trichloroethane
1,1,2-Trichlorotrifluoroethane (Freon 113)
1,2,4-Trichlorobenzene
1,4-Dioxane
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Bromochloromethane
Chloroform
cis-1,3-Dichloropropene
Dichlorodifluoromethane (Freon12)
Naphthalene
n-Butylbenzene
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene
Trichlorofluoromethane (Freon 11)
Vinyl chloride

SW846 8260C

Calibration:

1506044

This affected the following samples:

12 North Sump
14 North Yard
1514844-BLK1
1514844-BS1
1514844-BSD1
1514844-MS1
1514844-MSD1
1514916-BLK1
1514916-BS1
1514916-BSD1
17 Melrose Garage
9 North Basement
S505958-ICV1
S507211-CCV1
S507243-CCV1
Trip Blank

S505958-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2-Dichlorobenzene (125%)
Bromomethane (71%)
Chloromethane (76%)
Dichlorodifluoromethane (Freon12) (66%)
Hexachlorobutadiene (128%)
Vinyl chloride (70%)

This affected the following samples:

12 North Sump
14 North Yard
1514844-BLK1
1514844-BS1
1514844-BSD1
1514844-MS1
1514844-MSD1
1514916-BLK1
1514916-BS1
1514916-BSD1
17 Melrose Garage
9 North Basement
S507211-CCV1
S507243-CCV1
Trip Blank

Laboratory Control Samples:

1514844 BS/BSD

2,2-Dichloropropane percent recoveries (151/131) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

12 North Sump
14 North Yard
17 Melrose Garage
Trip Blank

1514916 BS/BSD

SW846 8260C

Laboratory Control Samples:

1514916 BS/BSD

2,2-Dichloropropane percent recoveries (139/119) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

9 North Basement

1514916-BS1

LCS/LCSD were analyzed in place of MS/MSD.

1514916-BSD1

LCS/LCSD were analyzed in place of MS/MSD.

Spikes:

1514844-MSD1 *Source: SC10616-02*

RPD out of acceptance range.

2-Butanone (MEK)

Samples:

S507211-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,2-Dichloropropane (38.2%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

1,2,4-Trichlorobenzene (-20.8%)
1,3,5-Trichlorobenzene (-21.2%)
Acetone (-25.4%)
Ethanol (-20.2%)

This affected the following samples:

12 North Sump
14 North Yard
1514844-BLK1
1514844-BS1
1514844-BSD1
1514844-MS1
1514844-MSD1
17 Melrose Garage
Trip Blank

S507243-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,2-Dichloropropane (45.7%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

1,2,3-Trichlorobenzene (-22.7%)
1,2,4-Trichlorobenzene (-24.1%)
1,3,5-Trichlorobenzene (-24.8%)
1,4-Dioxane (-20.2%)
Acetone (-21.9%)
Ethanol (-21.1%)
Naphthalene (-22.2%)

SW846 8260C

Samples:

S507243-CCV1

This affected the following samples:

12 North Sump
1514916-BLK1
1514916-BS1
1514916-BSD1
9 North Basement

SC10616-03RE1 *12 North Sump*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC10616-05RE1 *14 North Yard*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Acceptance Check Form

Client:	Environmental Compliance Services - Waterbury, VT
Project:	Poplawski Residence - Rutland, VT / 08-223948.00
Work Order:	SC10616
Sample(s) received on:	7/30/2015

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☑	☐	☐
Were custody seals intact?	☑	☐	☐
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC10616-02 **Client ID:** 17 Melrose Garage

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Other Oil	Calculated as		0.3	mg/l	SW846 8100Mod.
Total Petroleum Hydrocarbons	0.5		0.3	mg/l	SW846 8100Mod.
Unidentified	0.5		0.3	mg/l	SW846 8100Mod.
Bromodichloromethane	1.8		0.5	µg/l	SW846 8260C
Chloroform	32.6		1.0	µg/l	SW846 8260C

Lab ID: SC10616-03 **Client ID:** 12 North Sump

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Gasoline	Calculated as		0.2	mg/l	SW846 8100Mod.
Other Oil	Calculated as		0.2	mg/l	SW846 8100Mod.
Total Petroleum Hydrocarbons	10.7		0.2	mg/l	SW846 8100Mod.
Unidentified	10.7		0.2	mg/l	SW846 8100Mod.
1,2,4-Trimethylbenzene	338	E	1.0	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	110	E	1.0	µg/l	SW846 8260C
4-Isopropyltoluene	3.2		1.0	µg/l	SW846 8260C
Chloroform	22.4		1.0	µg/l	SW846 8260C
Ethylbenzene	26.0		1.0	µg/l	SW846 8260C
Isopropylbenzene	14.6		1.0	µg/l	SW846 8260C
m,p-Xylene	358	E	2.0	µg/l	SW846 8260C
Naphthalene	75.5	E	1.0	µg/l	SW846 8260C
n-Butylbenzene	10.9		1.0	µg/l	SW846 8260C
n-Propylbenzene	32.0		1.0	µg/l	SW846 8260C
o-Xylene	98.2		1.0	µg/l	SW846 8260C
sec-Butylbenzene	4.6		1.0	µg/l	SW846 8260C
Toluene	28.4		1.0	µg/l	SW846 8260C

Lab ID: SC10616-03RE1 **Client ID:** 12 North Sump

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	286	D	5.0	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	83.6	D	5.0	µg/l	SW846 8260C
m,p-Xylene	316	D	10.0	µg/l	SW846 8260C
Naphthalene	91.2	D	5.0	µg/l	SW846 8260C

Lab ID: SC10616-04 **Client ID:** 9 North Basement

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Other Oil	Calculated as		0.3	mg/l	SW846 8100Mod.
Total Petroleum Hydrocarbons	0.8		0.3	mg/l	SW846 8100Mod.
Unidentified	0.8		0.3	mg/l	SW846 8100Mod.
Bromodichloromethane	0.5		0.5	µg/l	SW846 8260C
Chloroform	9.7		1.0	µg/l	SW846 8260C

Lab ID: SC10616-05 **Client ID:** 14 North Yard

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Gasoline	Calculated as		0.2	mg/l	SW846 8100Mod.
Other Oil	Calculated as		0.2	mg/l	SW846 8100Mod.
Total Petroleum Hydrocarbons	7.2		0.2	mg/l	SW846 8100Mod.
Unidentified	7.2		0.2	mg/l	SW846 8100Mod.
1,2,4-Trimethylbenzene	129	E	1.0	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	28.0		1.0	µg/l	SW846 8260C
4-Isopropyltoluene	6.0		1.0	µg/l	SW846 8260C
Chloroform	24.3		1.0	µg/l	SW846 8260C
Ethylbenzene	5.4		1.0	µg/l	SW846 8260C
Isopropylbenzene	3.5		1.0	µg/l	SW846 8260C
m,p-Xylene	28.5		2.0	µg/l	SW846 8260C
Naphthalene	19.6		1.0	µg/l	SW846 8260C
n-Butylbenzene	16.7		1.0	µg/l	SW846 8260C
n-Propylbenzene	8.6		1.0	µg/l	SW846 8260C
o-Xylene	6.8		1.0	µg/l	SW846 8260C
sec-Butylbenzene	4.9		1.0	µg/l	SW846 8260C
Tert-amyl methyl ether	24.3		1.0	µg/l	SW846 8260C

Lab ID: SC10616-05RE1 **Client ID:** 14 North Yard

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	109	D	5.0	µg/l	SW846 8260C

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip Blank	08-223948.00	Deionized Water	28-Jul-15 08:00	30-Jul-15
SC10616-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip Blank	08-223948.00	Deionized Water	28-Jul-15 08:00	30-Jul-15
SC10616-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*93*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*113*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*109*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
17 Melrose Garage	08-223948.00	Ground Water	28-Jul-15 11:45	30-Jul-15
SC10616-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	**1.8**		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	**32.6**		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
17 Melrose Garage	08-223948.00	Ground Water	28-Jul-15 11:45	30-Jul-15
SC10616-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*94*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*110*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*112*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
Fingerprinting by GC Prepared by method SW846 3510C			R02										

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
17 Melrose Garage	08-223948.00	Ground Water	28-Jul-15 11:45	30-Jul-15
SC10616-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Extractable Petroleum Hydrocarbons													
Fingerprinting by GC			R02										
Prepared by method SW846 3510C													
8006-61-9	Gasoline	< 0.3		mg/l	0.3	0.2	1	SW846 8100Mod.	31-Jul-15	03-Aug-15	SEP	1514829	
68476-30-2	Fuel Oil #2	< 0.3		mg/l	0.3	0.1	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	< 0.3		mg/l	0.3	0.03	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	< 0.3		mg/l	0.3	0.1	1	"	"	"	"	"	
M09800000	Motor Oil	< 0.3		mg/l	0.3	0.2	1	"	"	"	"	"	
8032-32-4	Ligroin	< 0.3		mg/l	0.3	0.08	1	"	"	"	"	"	
J00100000	Aviation Fuel	< 0.3		mg/l	0.3	0.08	1	"	"	"	"	"	
	Hydraulic Oil	< 0.3		mg/l	0.3	0.03	1	"	"	"	"	"	
	Dielectric Fluid	< 0.3		mg/l	0.3	0.08	1	"	"	"	"	"	
	Unidentified	**0.5**		mg/l	0.3	0.08	1	"	"	"	"	"	
	Other Oil	**Calculated as**		mg/l	0.3	0.03	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**0.5**		mg/l	0.3	0.03	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*74*			*40-140 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
12 North Sump	08-223948.00	Ground Water	28-Jul-15 12:10	30-Jul-15
SC10616-03				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	**10.9**		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	**4.6**		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	**22.4**		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	**26.0**		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
12 North Sump	08-223948.00	Ground Water	28-Jul-15 12:10	30-Jul-15
SC10616-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	**14.6**		µg/l	1.0	0.2	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
99-87-6	4-Isopropyltoluene	**3.2**		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	**75.5**	E	µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	**32.0**		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	**28.4**		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	**338**	E	µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**110**	E	µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	**358**	E	µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	**98.2**		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*102*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*100*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
91-20-3	Naphthalene	**91.2**	D	µg/l	5.0	2.0	5	SW846 8260C	03-Aug-15	03-Aug-15	NAA	1514916	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
12 North Sump	08-223948.00	Ground Water	28-Jul-15 12:10	30-Jul-15
SC10616-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds by SW846 8260			GS1										
Prepared by method SW846 5030 Water MS													
95-63-6	1,2,4-Trimethylbenzene	**286**	D	µg/l	5.0	2.0	5	SW846 8260C	03-Aug-15	03-Aug-15	NAA	1514916	X
108-67-8	1,3,5-Trimethylbenzene	**83.6**	D	µg/l	5.0	4.4	5	"	"	"	"	"	X
179601-23-1	m,p-Xylene	**316**	D	µg/l	10.0	1.9	5	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*102*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*98*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
Fingerprinting by GC													
Prepared by method SW846 3510C													
8006-61-9	Gasoline	**Calculated as**		mg/l	0.2	0.1	1	SW846 8100Mod.	31-Jul-15	03-Aug-15	SEP	1514829	
68476-30-2	Fuel Oil #2	< 0.2		mg/l	0.2	0.08	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	< 0.2		mg/l	0.2	0.02	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	< 0.2		mg/l	0.2	0.1	1	"	"	"	"	"	
M09800000	Motor Oil	< 0.2		mg/l	0.2	0.1	1	"	"	"	"	"	
8032-32-4	Ligroin	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
J00100000	Aviation Fuel	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
	Hydraulic Oil	< 0.2		mg/l	0.2	0.02	1	"	"	"	"	"	
	Dielectric Fluid	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
	Unidentified	**10.7**		mg/l	0.2	0.05	1	"	"	"	"	"	
	Other Oil	**Calculated as**		mg/l	0.2	0.02	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**10.7**		mg/l	0.2	0.02	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*57*			*40-140 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
9 North Basement	08-223948.00	Ground Water	28-Jul-15 12:30	30-Jul-15
SC10616-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	03-Aug-15	03-Aug-15	NAA	1514916	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	**0.5**		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	**9.7**		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
9 North Basement	08-223948.00	Ground Water	28-Jul-15 12:30	30-Jul-15
SC10616-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	03-Aug-15	03-Aug-15	NAA	1514916	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
Fingerprinting by GC Prepared by method SW846 3510C			R02										

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
9 North Basement SC10616-04	08-223948.00	Ground Water	28-Jul-15 12:30	30-Jul-15

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Extractable Petroleum Hydrocarbons													
Fingerprinting by GC			R02										
Prepared by method SW846 3510C													
8006-61-9	Gasoline	< 0.3		mg/l	0.3	0.1	1	SW846 8100Mod.	31-Jul-15	03-Aug-15	SEP	1514829	
68476-30-2	Fuel Oil #2	< 0.3		mg/l	0.3	0.1	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	< 0.3		mg/l	0.3	0.03	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	< 0.3		mg/l	0.3	0.1	1	"	"	"	"	"	
M09800000	Motor Oil	< 0.3		mg/l	0.3	0.2	1	"	"	"	"	"	
8032-32-4	Ligroin	< 0.3		mg/l	0.3	0.07	1	"	"	"	"	"	
J00100000	Aviation Fuel	< 0.3		mg/l	0.3	0.07	1	"	"	"	"	"	
	Hydraulic Oil	< 0.3		mg/l	0.3	0.03	1	"	"	"	"	"	
	Dielectric Fluid	< 0.3		mg/l	0.3	0.07	1	"	"	"	"	"	
	Unidentified	**0.8**		mg/l	0.3	0.07	1	"	"	"	"	"	
	Other Oil	**Calculated as**		mg/l	0.3	0.03	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**0.8**		mg/l	0.3	0.03	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*69*			*40-140 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
14 North Yard	08-223948.00	Ground Water	28-Jul-15 12:45	30-Jul-15
SC10616-05				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	**16.7**		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	**4.9**		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	**24.3**		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	**5.4**		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
14 North Yard	08-223948.00	Ground Water	28-Jul-15 12:45	30-Jul-15
SC10616-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	**3.5**		µg/l	1.0	0.2	1	SW846 8260C	31-Jul-15	31-Jul-15	NAA	1514844	X
99-87-6	4-Isopropyltoluene	**6.0**		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	**19.6**		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	**8.6**		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	**129**	E	µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**28.0**		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	**28.5**		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	**6.8**		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	**24.3**		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*100*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*98*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
95-63-6	1,2,4-Trimethylbenzene	**109**	D	µg/l	5.0	2.0	5	SW846 8260C	03-Aug-15	03-Aug-15	NAA	1514916	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
14 North Yard	08-223948.00	Ground Water	28-Jul-15 12:45	30-Jul-15
SC10616-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			SW846 8260C	03-Aug-15	03-Aug-15	NAA	1514916	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*96*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*96*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
Fingerprinting by GC Prepared by method SW846 3510C													
8006-61-9	Gasoline	**Calculated as**		mg/l	0.2	0.1	1	SW846 8100Mod.	31-Jul-15	03-Aug-15	SEP	1514829	
68476-30-2	Fuel Oil #2	< 0.2		mg/l	0.2	0.08	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	< 0.2		mg/l	0.2	0.02	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	< 0.2		mg/l	0.2	0.1	1	"	"	"	"	"	
M09800000	Motor Oil	< 0.2		mg/l	0.2	0.1	1	"	"	"	"	"	
8032-32-4	Ligroin	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
J00100000	Aviation Fuel	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
	Hydraulic Oil	< 0.2		mg/l	0.2	0.02	1	"	"	"	"	"	
	Dielectric Fluid	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
	Unidentified	**7.2**		mg/l	0.2	0.05	1	"	"	"	"	"	
	Other Oil	**Calculated as**		mg/l	0.2	0.02	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**7.2**		mg/l	0.2	0.02	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*65*			*40-140 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
Blank (1514844-BLK1)					Prepared & Analyzed: 31-Jul-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
Blank (1514844-BLK1)					Prepared & Analyzed: 31-Jul-15					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*47.1*		µg/l		*50.0*		*94*	*70-130*		
Surrogate: Toluene-d8	*47.6*		µg/l		*50.0*		*95*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*55.2*		µg/l		*50.0*		*110*	*70-130*		
Surrogate: Dibromofluoromethane	*55.4*		µg/l		*50.0*		*111*	*70-130*		
LCS (1514844-BS1)					Prepared & Analyzed: 31-Jul-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.6**		µg/l		20.0		108	70-130		
Acetone	**18.1**		µg/l		20.0		90	70-130		
Acrylonitrile	**18.7**		µg/l		20.0		93	70-130		
Benzene	**22.8**		µg/l		20.0		114	70-130		
Bromobenzene	**23.4**		µg/l		20.0		117	70-130		
Bromochloromethane	**22.1**		µg/l		20.0		111	70-130		
Bromodichloromethane	**23.2**		µg/l		20.0		116	70-130		
Bromoform	**22.2**		µg/l		20.0		111	70-130		
Bromomethane	**19.6**		µg/l		20.0		98	70-130		
2-Butanone (MEK)	**20.4**		µg/l		20.0		102	70-130		
n-Butylbenzene	**20.0**		µg/l		20.0		100	70-130		
sec-Butylbenzene	**22.0**		µg/l		20.0		110	70-130		
tert-Butylbenzene	**21.2**		µg/l		20.0		106	70-130		
Carbon disulfide	**24.3**		µg/l		20.0		122	70-130		
Carbon tetrachloride	**22.6**		µg/l		20.0		113	70-130		
Chlorobenzene	**22.1**		µg/l		20.0		111	70-130		
Chloroethane	**20.1**		µg/l		20.0		100	70-130		
Chloroform	**22.3**		µg/l		20.0		112	70-130		
Chloromethane	**22.7**		µg/l		20.0		114	70-130		
2-Chlorotoluene	**22.1**		µg/l		20.0		110	70-130		
4-Chlorotoluene	**21.8**		µg/l		20.0		109	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
LCS (1514844-BS1)					Prepared & Analyzed: 31-Jul-15					
1,2-Dibromo-3-chloropropane	**17.8**		µg/l		20.0		89	70-130		
Dibromochloromethane	**25.3**		µg/l		20.0		127	70-130		
1,2-Dibromoethane (EDB)	**23.2**		µg/l		20.0		116	70-130		
Dibromomethane	**22.6**		µg/l		20.0		113	70-130		
1,2-Dichlorobenzene	**21.5**		µg/l		20.0		108	70-130		
1,3-Dichlorobenzene	**24.5**		µg/l		20.0		122	70-130		
1,4-Dichlorobenzene	**20.8**		µg/l		20.0		104	70-130		
Dichlorodifluoromethane (Freon12)	**21.9**		µg/l		20.0		110	70-130		
1,1-Dichloroethane	**18.3**		µg/l		20.0		91	70-130		
1,2-Dichloroethane	**21.6**		µg/l		20.0		108	70-130		
1,1-Dichloroethene	**23.0**		µg/l		20.0		115	70-130		
cis-1,2-Dichloroethene	**22.9**		µg/l		20.0		115	70-130		
trans-1,2-Dichloroethene	**21.9**		µg/l		20.0		110	70-130		
1,2-Dichloropropane	**21.9**		µg/l		20.0		110	70-130		
1,3-Dichloropropane	**21.6**		µg/l		20.0		108	70-130		
2,2-Dichloropropane	**30.3**	QC2	µg/l		20.0		151	70-130		
1,1-Dichloropropene	**19.9**		µg/l		20.0		100	70-130		
cis-1,3-Dichloropropene	**22.6**		µg/l		20.0		113	70-130		
trans-1,3-Dichloropropene	**23.0**		µg/l		20.0		115	70-130		
Ethylbenzene	**21.0**		µg/l		20.0		105	70-130		
Hexachlorobutadiene	**23.1**		µg/l		20.0		115	70-130		
2-Hexanone (MBK)	**18.7**		µg/l		20.0		94	70-130		
Isopropylbenzene	**22.2**		µg/l		20.0		111	70-130		
4-Isopropyltoluene	**18.8**		µg/l		20.0		94	70-130		
Methyl tert-butyl ether	**18.1**		µg/l		20.0		90	70-130		
4-Methyl-2-pentanone (MIBK)	**19.0**		µg/l		20.0		95	70-130		
Methylene chloride	**20.2**		µg/l		20.0		101	70-130		
Naphthalene	**17.9**		µg/l		20.0		90	70-130		
n-Propylbenzene	**20.0**		µg/l		20.0		100	70-130		
Styrene	**20.0**		µg/l		20.0		100	70-130		
1,1,1,2-Tetrachloroethane	**23.6**		µg/l		20.0		118	70-130		
1,1,2,2-Tetrachloroethane	**21.6**		µg/l		20.0		108	70-130		
Tetrachloroethene	**24.6**		µg/l		20.0		123	70-130		
Toluene	**22.7**		µg/l		20.0		114	70-130		
1,2,3-Trichlorobenzene	**17.9**		µg/l		20.0		90	70-130		
1,2,4-Trichlorobenzene	**17.7**		µg/l		20.0		89	70-130		
1,3,5-Trichlorobenzene	**17.4**		µg/l		20.0		87	70-130		
1,1,1-Trichloroethane	**23.4**		µg/l		20.0		117	70-130		
1,1,2-Trichloroethane	**21.6**		µg/l		20.0		108	70-130		
Trichloroethene	**22.7**		µg/l		20.0		113	70-130		
Trichlorofluoromethane (Freon 11)	**21.6**		µg/l		20.0		108	70-130		
1,2,3-Trichloropropane	**21.7**		µg/l		20.0		108	70-130		
1,2,4-Trimethylbenzene	**21.2**		µg/l		20.0		106	70-130		
1,3,5-Trimethylbenzene	**21.0**		µg/l		20.0		105	70-130		
Vinyl chloride	**21.6**		µg/l		20.0		108	70-130		
m,p-Xylene	**21.8**		µg/l		20.0		109	70-130		
o-Xylene	**22.7**		µg/l		20.0		114	70-130		
Tetrahydrofuran	**20.2**		µg/l		20.0		101	70-130		
Ethyl ether	**19.6**		µg/l		20.0		98	70-130		
Tert-amyl methyl ether	**20.3**		µg/l		20.0		102	70-130		
Ethyl tert-butyl ether	**21.3**		µg/l		20.0		106	70-130		
Di-isopropyl ether	**22.6**		µg/l		20.0		113	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
LCS (1514844-BS1)					Prepared & Analyzed: 31-Jul-15					
Tert-Butanol / butyl alcohol	**208**		µg/l		200		104	70-130		
1,4-Dioxane	**186**		µg/l		200		93	70-130		
trans-1,4-Dichloro-2-butene	**24.7**		µg/l		20.0		123	70-130		
Ethanol	**391**		µg/l		400		98	70-130		
Surrogate: 4-Bromofluorobenzene	*52.6*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.6*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*52.0*		µg/l		*50.0*		*104*	*70-130*		
LCS Dup (1514844-BSD1)					Prepared & Analyzed: 31-Jul-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.7**		µg/l		20.0		94	70-130	14	20
Acetone	**16.5**		µg/l		20.0		82	70-130	9	20
Acrylonitrile	**17.4**		µg/l		20.0		87	70-130	7	20
Benzene	**20.8**		µg/l		20.0		104	70-130	9	20
Bromobenzene	**20.2**		µg/l		20.0		101	70-130	14	20
Bromochloromethane	**20.6**		µg/l		20.0		103	70-130	7	20
Bromodichloromethane	**21.4**		µg/l		20.0		107	70-130	8	20
Bromoform	**20.3**		µg/l		20.0		101	70-130	9	20
Bromomethane	**18.0**		µg/l		20.0		90	70-130	8	20
2-Butanone (MEK)	**20.3**		µg/l		20.0		102	70-130	0.5	20
n-Butylbenzene	**16.9**		µg/l		20.0		84	70-130	17	20
sec-Butylbenzene	**18.4**		µg/l		20.0		92	70-130	18	20
tert-Butylbenzene	**18.1**		µg/l		20.0		90	70-130	16	20
Carbon disulfide	**21.3**		µg/l		20.0		106	70-130	13	20
Carbon tetrachloride	**20.2**		µg/l		20.0		101	70-130	12	20
Chlorobenzene	**19.7**		µg/l		20.0		98	70-130	12	20
Chloroethane	**17.7**		µg/l		20.0		89	70-130	12	20
Chloroform	**20.0**		µg/l		20.0		100	70-130	11	20
Chloromethane	**19.0**		µg/l		20.0		95	70-130	18	20
2-Chlorotoluene	**19.2**		µg/l		20.0		96	70-130	14	20
4-Chlorotoluene	**18.8**		µg/l		20.0		94	70-130	15	20
1,2-Dibromo-3-chloropropane	**17.7**		µg/l		20.0		88	70-130	0.8	20
Dibromochloromethane	**23.3**		µg/l		20.0		117	70-130	8	20
1,2-Dibromoethane (EDB)	**21.3**		µg/l		20.0		107	70-130	8	20
Dibromomethane	**21.0**		µg/l		20.0		105	70-130	7	20
1,2-Dichlorobenzene	**19.7**		µg/l		20.0		98	70-130	9	20
1,3-Dichlorobenzene	**21.1**		µg/l		20.0		106	70-130	15	20
1,4-Dichlorobenzene	**18.4**		µg/l		20.0		92	70-130	13	20
Dichlorodifluoromethane (Freon12)	**18.4**		µg/l		20.0		92	70-130	17	20
1,1-Dichloroethane	**16.6**		µg/l		20.0		83	70-130	10	20
1,2-Dichloroethane	**20.0**		µg/l		20.0		100	70-130	8	20
1,1-Dichloroethene	**20.5**		µg/l		20.0		102	70-130	12	20
cis-1,2-Dichloroethene	**21.0**		µg/l		20.0		105	70-130	9	20
trans-1,2-Dichloroethene	**19.2**		µg/l		20.0		96	70-130	13	20
1,2-Dichloropropane	**20.2**		µg/l		20.0		101	70-130	8	20
1,3-Dichloropropane	**20.0**		µg/l		20.0		100	70-130	7	20
2,2-Dichloropropane	**26.2**	QC2	µg/l		20.0		131	70-130	15	20
1,1-Dichloropropene	**17.4**		µg/l		20.0		87	70-130	13	20
cis-1,3-Dichloropropene	**20.8**		µg/l		20.0		104	70-130	8	20
trans-1,3-Dichloropropene	**21.5**		µg/l		20.0		107	70-130	7	20
Ethylbenzene	**18.2**		µg/l		20.0		91	70-130	14	20
Hexachlorobutadiene	**20.1**		µg/l		20.0		100	70-130	14	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
LCS Dup (1514844-BSD1)					Prepared & Analyzed: 31-Jul-15					
2-Hexanone (MBK)	**18.0**		µg/l		20.0		90	70-130	4	20
Isopropylbenzene	**19.0**		µg/l		20.0		95	70-130	15	20
4-Isopropyltoluene	**16.3**		µg/l		20.0		82	70-130	14	20
Methyl tert-butyl ether	**17.0**		µg/l		20.0		85	70-130	6	20
4-Methyl-2-pentanone (MIBK)	**18.4**		µg/l		20.0		92	70-130	4	20
Methylene chloride	**18.7**		µg/l		20.0		93	70-130	8	20
Naphthalene	**17.0**		µg/l		20.0		85	70-130	5	20
n-Propylbenzene	**17.0**		µg/l		20.0		85	70-130	16	20
Styrene	**17.6**		µg/l		20.0		88	70-130	13	20
1,1,1,2-Tetrachloroethane	**21.2**		µg/l		20.0		106	70-130	11	20
1,1,2,2-Tetrachloroethane	**20.0**		µg/l		20.0		100	70-130	7	20
Tetrachloroethene	**21.8**		µg/l		20.0		109	70-130	12	20
Toluene	**20.3**		µg/l		20.0		102	70-130	11	20
1,2,3-Trichlorobenzene	**15.9**		µg/l		20.0		79	70-130	12	20
1,2,4-Trichlorobenzene	**15.8**		µg/l		20.0		79	70-130	12	20
1,3,5-Trichlorobenzene	**15.5**		µg/l		20.0		78	70-130	11	20
1,1,1-Trichloroethane	**20.6**		µg/l		20.0		103	70-130	13	20
1,1,2-Trichloroethane	**19.9**		µg/l		20.0		100	70-130	8	20
Trichloroethene	**20.5**		µg/l		20.0		102	70-130	10	20
Trichlorofluoromethane (Freon 11)	**18.7**		µg/l		20.0		94	70-130	14	20
1,2,3-Trichloropropane	**20.2**		µg/l		20.0		101	70-130	7	20
1,2,4-Trimethylbenzene	**18.3**		µg/l		20.0		91	70-130	15	20
1,3,5-Trimethylbenzene	**18.0**		µg/l		20.0		90	70-130	16	20
Vinyl chloride	**18.5**		µg/l		20.0		93	70-130	15	20
m,p-Xylene	**18.7**		µg/l		20.0		93	70-130	15	20
o-Xylene	**19.9**		µg/l		20.0		100	70-130	13	20
Tetrahydrofuran	**18.7**		µg/l		20.0		94	70-130	8	20
Ethyl ether	**18.1**		µg/l		20.0		91	70-130	8	20
Tert-amyl methyl ether	**19.0**		µg/l		20.0		95	70-130	7	20
Ethyl tert-butyl ether	**20.0**		µg/l		20.0		100	70-130	6	20
Di-isopropyl ether	**20.7**		µg/l		20.0		103	70-130	9	20
Tert-Butanol / butyl alcohol	**201**		µg/l		200		101	70-130	3	20
1,4-Dioxane	**183**		µg/l		200		91	70-130	2	20
trans-1,4-Dichloro-2-butene	**22.9**		µg/l		20.0		114	70-130	8	20
Ethanol	**366**		µg/l		400		91	70-130	7	20
Surrogate: 4-Bromofluorobenzene	*52.5*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*51.1*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.7*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*52.1*		µg/l		*50.0*		*104*	*70-130*		
Matrix Spike (1514844-MS1)			**Source: SC10616-02**		Prepared & Analyzed: 31-Jul-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.4**	D	µg/l		20.0	BRL	107	70-130		
Acetone	**18.6**	D	µg/l		20.0	BRL	93	70-130		
Acrylonitrile	**17.8**	D	µg/l		20.0	BRL	89	70-130		
Benzene	**22.0**	D	µg/l		20.0	BRL	110	70-130		
Bromobenzene	**22.5**	D	µg/l		20.0	BRL	112	70-130		
Bromochloromethane	**21.2**	D	µg/l		20.0	BRL	106	70-130		
Bromodichloromethane	**23.2**	D	µg/l		20.0	0.4	114	70-130		
Bromoform	**21.0**	D	µg/l		20.0	BRL	105	70-130		
Bromomethane	**19.6**	D	µg/l		20.0	BRL	98	70-130		
2-Butanone (MEK)	**19.0**	D	µg/l		20.0	BRL	95	70-130		
n-Butylbenzene	**18.7**	D	µg/l		20.0	BRL	94	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
Matrix Spike (1514844-MS1)			**Source: SC10616-02**		Prepared & Analyzed: 31-Jul-15					
sec-Butylbenzene	**21.1**	D	µg/l		20.0	BRL	105	70-130		
tert-Butylbenzene	**20.7**	D	µg/l		20.0	BRL	104	70-130		
Carbon disulfide	**22.5**	D	µg/l		20.0	BRL	113	70-130		
Carbon tetrachloride	**22.9**	D	µg/l		20.0	BRL	115	70-130		
Chlorobenzene	**21.7**	D	µg/l		20.0	BRL	109	70-130		
Chloroethane	**19.0**	D	µg/l		20.0	BRL	95	70-130		
Chloroform	**27.7**	D	µg/l		20.0	6.5	106	70-130		
Chloromethane	**20.3**	D	µg/l		20.0	BRL	101	70-130		
2-Chlorotoluene	**21.6**	D	µg/l		20.0	BRL	108	70-130		
4-Chlorotoluene	**20.9**	D	µg/l		20.0	BRL	104	70-130		
1,2-Dibromo-3-chloropropane	**17.6**	D	µg/l		20.0	BRL	88	70-130		
Dibromochloromethane	**24.4**	D	µg/l		20.0	BRL	122	70-130		
1,2-Dibromoethane (EDB)	**22.6**	D	µg/l		20.0	BRL	113	70-130		
Dibromomethane	**22.1**	D	µg/l		20.0	BRL	111	70-130		
1,2-Dichlorobenzene	**21.3**	D	µg/l		20.0	BRL	106	70-130		
1,3-Dichlorobenzene	**23.5**	D	µg/l		20.0	BRL	118	70-130		
1,4-Dichlorobenzene	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Dichlorodifluoromethane (Freon12)	**20.0**	D	µg/l		20.0	BRL	100	70-130		
1,1-Dichloroethane	**19.6**	D	µg/l		20.0	BRL	98	70-130		
1,2-Dichloroethane	**21.2**	D	µg/l		20.0	BRL	106	70-130		
1,1-Dichloroethene	**22.3**	D	µg/l		20.0	BRL	112	70-130		
cis-1,2-Dichloroethene	**22.1**	D	µg/l		20.0	BRL	110	70-130		
trans-1,2-Dichloroethene	**21.2**	D	µg/l		20.0	BRL	106	70-130		
1,2-Dichloropropane	**21.3**	D	µg/l		20.0	BRL	106	70-130		
1,3-Dichloropropane	**21.2**	D	µg/l		20.0	BRL	106	70-130		
2,2-Dichloropropane	**22.7**	D	µg/l		20.0	BRL	113	70-130		
1,1-Dichloropropene	**18.6**	D	µg/l		20.0	BRL	93	70-130		
cis-1,3-Dichloropropene	**20.8**	D	µg/l		20.0	BRL	104	70-130		
trans-1,3-Dichloropropene	**21.3**	D	µg/l		20.0	BRL	107	70-130		
Ethylbenzene	**20.3**	D	µg/l		20.0	BRL	102	70-130		
Hexachlorobutadiene	**21.0**	D	µg/l		20.0	BRL	105	70-130		
2-Hexanone (MBK)	**17.5**	D	µg/l		20.0	BRL	88	70-130		
Isopropylbenzene	**21.4**	D	µg/l		20.0	BRL	107	70-130		
4-Isopropyltoluene	**18.0**	D	µg/l		20.0	BRL	90	70-130		
Methyl tert-butyl ether	**17.4**	D	µg/l		20.0	BRL	87	70-130		
4-Methyl-2-pentanone (MIBK)	**18.1**	D	µg/l		20.0	BRL	90	70-130		
Methylene chloride	**19.4**	D	µg/l		20.0	BRL	97	70-130		
Naphthalene	**16.3**	D	µg/l		20.0	BRL	82	70-130		
n-Propylbenzene	**19.4**	D	µg/l		20.0	BRL	97	70-130		
Styrene	**18.9**	D	µg/l		20.0	BRL	94	70-130		
1,1,1,2-Tetrachloroethane	**22.5**	D	µg/l		20.0	BRL	113	70-130		
1,1,2,2-Tetrachloroethane	**20.8**	D	µg/l		20.0	BRL	104	70-130		
Tetrachloroethene	**23.8**	D	µg/l		20.0	BRL	119	70-130		
Toluene	**22.3**	D	µg/l		20.0	BRL	112	70-130		
1,2,3-Trichlorobenzene	**16.3**	D	µg/l		20.0	BRL	81	70-130		
1,2,4-Trichlorobenzene	**16.2**	D	µg/l		20.0	BRL	81	70-130		
1,3,5-Trichlorobenzene	**16.1**	D	µg/l		20.0	BRL	80	70-130		
1,1,1-Trichloroethane	**22.7**	D	µg/l		20.0	BRL	114	70-130		
1,1,2-Trichloroethane	**21.0**	D	µg/l		20.0	BRL	105	70-130		
Trichloroethene	**22.6**	D	µg/l		20.0	BRL	113	70-130		
Trichlorofluoromethane (Freon 11)	**21.3**	D	µg/l		20.0	BRL	106	70-130		
1,2,3-Trichloropropane	**20.9**	D	µg/l		20.0	BRL	104	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
Matrix Spike (1514844-MS1)			**Source: SC10616-02**		Prepared & Analyzed: 31-Jul-15					
1,2,4-Trimethylbenzene	**20.6**	D	µg/l		20.0	BRL	103	70-130		
1,3,5-Trimethylbenzene	**20.1**	D	µg/l		20.0	BRL	101	70-130		
Vinyl chloride	**21.3**	D	µg/l		20.0	BRL	106	70-130		
m,p-Xylene	**20.5**	D	µg/l		20.0	BRL	102	70-130		
o-Xylene	**22.2**	D	µg/l		20.0	BRL	111	70-130		
Tetrahydrofuran	**17.8**	D	µg/l		20.0	BRL	89	70-130		
Ethyl ether	**18.9**	D	µg/l		20.0	BRL	94	70-130		
Tert-amyl methyl ether	**19.8**	D	µg/l		20.0	BRL	99	70-130		
Ethyl tert-butyl ether	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Di-isopropyl ether	**20.8**	D	µg/l		20.0	BRL	104	70-130		
Tert-Butanol / butyl alcohol	**202**	D	µg/l		200	BRL	101	70-130		
1,4-Dioxane	**167**	D	µg/l		200	BRL	84	70-130		
trans-1,4-Dichloro-2-butene	**22.1**	D	µg/l		20.0	BRL	110	70-130		
Ethanol	**358**	D	µg/l		400	BRL	89	70-130		
Surrogate: 4-Bromofluorobenzene	*53.2*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Toluene-d8	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.2*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Dibromofluoromethane	*52.6*		µg/l		*50.0*		*105*	*70-130*		
Matrix Spike Dup (1514844-MSD1)			**Source: SC10616-02**		Prepared & Analyzed: 31-Jul-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.4**	D	µg/l		20.0	BRL	102	70-130	5	20
Acetone	**17.3**	D	µg/l		20.0	BRL	87	70-130	7	20
Acrylonitrile	**17.4**	D	µg/l		20.0	BRL	87	70-130	3	20
Benzene	**21.0**	D	µg/l		20.0	BRL	105	70-130	5	20
Bromobenzene	**21.8**	D	µg/l		20.0	BRL	109	70-130	3	20
Bromochloromethane	**20.8**	D	µg/l		20.0	BRL	104	70-130	2	20
Bromodichloromethane	**22.0**	D	µg/l		20.0	0.4	108	70-130	5	20
Bromoform	**20.9**	D	µg/l		20.0	BRL	105	70-130	0.6	20
Bromomethane	**19.5**	D	µg/l		20.0	BRL	98	70-130	0.7	20
2-Butanone (MEK)	**15.3**	QR5, D	µg/l		20.0	BRL	76	70-130	22	20
n-Butylbenzene	**18.2**	D	µg/l		20.0	BRL	91	70-130	3	20
sec-Butylbenzene	**20.4**	D	µg/l		20.0	BRL	102	70-130	3	20
tert-Butylbenzene	**20.0**	D	µg/l		20.0	BRL	100	70-130	3	20
Carbon disulfide	**21.4**	D	µg/l		20.0	BRL	107	70-130	5	20
Carbon tetrachloride	**21.4**	D	µg/l		20.0	BRL	107	70-130	7	20
Chlorobenzene	**20.9**	D	µg/l		20.0	BRL	104	70-130	4	20
Chloroethane	**18.4**	D	µg/l		20.0	BRL	92	70-130	3	20
Chloroform	**26.4**	D	µg/l		20.0	6.5	99	70-130	7	20
Chloromethane	**18.7**	D	µg/l		20.0	BRL	94	70-130	8	20
2-Chlorotoluene	**20.7**	D	µg/l		20.0	BRL	104	70-130	4	20
4-Chlorotoluene	**20.1**	D	µg/l		20.0	BRL	100	70-130	4	20
1,2-Dibromo-3-chloropropane	**16.6**	D	µg/l		20.0	BRL	83	70-130	6	20
Dibromochloromethane	**23.9**	D	µg/l		20.0	BRL	120	70-130	2	20
1,2-Dibromoethane (EDB)	**21.6**	D	µg/l		20.0	BRL	108	70-130	4	20
Dibromomethane	**21.2**	D	µg/l		20.0	BRL	106	70-130	4	20
1,2-Dichlorobenzene	**20.9**	D	µg/l		20.0	BRL	104	70-130	2	20
1,3-Dichlorobenzene	**22.9**	D	µg/l		20.0	BRL	115	70-130	3	20
1,4-Dichlorobenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130	2	20
Dichlorodifluoromethane (Freon12)	**18.6**	D	µg/l		20.0	BRL	93	70-130	7	20
1,1-Dichloroethane	**20.1**	D	µg/l		20.0	BRL	100	70-130	3	20
1,2-Dichloroethane	**20.2**	D	µg/l		20.0	BRL	101	70-130	5	20
1,1-Dichloroethene	**21.5**	D	µg/l		20.0	BRL	108	70-130	4	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514844 - SW846 5030 Water MS										
Matrix Spike Dup (1514844-MSD1)			**Source: SC10616-02**		Prepared & Analyzed: 31-Jul-15					
cis-1,2-Dichloroethene	**21.3**	D	µg/l		20.0	BRL	107	70-130	3	20
trans-1,2-Dichloroethene	**19.9**	D	µg/l		20.0	BRL	100	70-130	6	20
1,2-Dichloropropane	**20.2**	D	µg/l		20.0	BRL	101	70-130	5	20
1,3-Dichloropropane	**20.3**	D	µg/l		20.0	BRL	102	70-130	4	20
2,2-Dichloropropane	**20.8**	D	µg/l		20.0	BRL	104	70-130	9	20
1,1-Dichloropropene	**18.0**	D	µg/l		20.0	BRL	90	70-130	4	20
cis-1,3-Dichloropropene	**20.1**	D	µg/l		20.0	BRL	100	70-130	3	20
trans-1,3-Dichloropropene	**20.5**	D	µg/l		20.0	BRL	102	70-130	4	20
Ethylbenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130	4	20
Hexachlorobutadiene	**21.6**	D	µg/l		20.0	BRL	108	70-130	3	20
2-Hexanone (MBK)	**16.4**	D	µg/l		20.0	BRL	82	70-130	7	20
Isopropylbenzene	**21.0**	D	µg/l		20.0	BRL	105	70-130	2	20
4-Isopropyltoluene	**17.6**	D	µg/l		20.0	BRL	88	70-130	2	20
Methyl tert-butyl ether	**16.5**	D	µg/l		20.0	BRL	83	70-130	5	20
4-Methyl-2-pentanone (MIBK)	**17.1**	D	µg/l		20.0	BRL	86	70-130	6	20
Methylene chloride	**18.8**	D	µg/l		20.0	BRL	94	70-130	3	20
Naphthalene	**16.4**	D	µg/l		20.0	BRL	82	70-130	0.2	20
n-Propylbenzene	**18.5**	D	µg/l		20.0	BRL	93	70-130	4	20
Styrene	**18.5**	D	µg/l		20.0	BRL	92	70-130	2	20
1,1,1,2-Tetrachloroethane	**22.2**	D	µg/l		20.0	BRL	111	70-130	1	20
1,1,2,2-Tetrachloroethane	**20.5**	D	µg/l		20.0	BRL	102	70-130	2	20
Tetrachloroethene	**22.7**	D	µg/l		20.0	BRL	113	70-130	5	20
Toluene	**21.0**	D	µg/l		20.0	BRL	105	70-130	6	20
1,2,3-Trichlorobenzene	**16.4**	D	µg/l		20.0	BRL	82	70-130	0.6	20
1,2,4-Trichlorobenzene	**16.4**	D	µg/l		20.0	BRL	82	70-130	1	20
1,3,5-Trichlorobenzene	**16.3**	D	µg/l		20.0	BRL	82	70-130	2	20
1,1,1-Trichloroethane	**21.4**	D	µg/l		20.0	BRL	107	70-130	6	20
1,1,2-Trichloroethane	**20.1**	D	µg/l		20.0	BRL	100	70-130	4	20
Trichloroethene	**21.4**	D	µg/l		20.0	BRL	107	70-130	5	20
Trichlorofluoromethane (Freon 11)	**20.0**	D	µg/l		20.0	BRL	100	70-130	6	20
1,2,3-Trichloropropane	**20.1**	D	µg/l		20.0	BRL	101	70-130	4	20
1,2,4-Trimethylbenzene	**20.1**	D	µg/l		20.0	BRL	100	70-130	2	20
1,3,5-Trimethylbenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130	3	20
Vinyl chloride	**19.5**	D	µg/l		20.0	BRL	97	70-130	9	20
m,p-Xylene	**19.9**	D	µg/l		20.0	BRL	100	70-130	3	20
o-Xylene	**21.5**	D	µg/l		20.0	BRL	108	70-130	3	20
Tetrahydrofuran	**17.1**	D	µg/l		20.0	BRL	86	70-130	4	20
Ethyl ether	**18.0**	D	µg/l		20.0	BRL	90	70-130	5	20
Tert-amyl methyl ether	**18.4**	D	µg/l		20.0	BRL	92	70-130	7	20
Ethyl tert-butyl ether	**19.6**	D	µg/l		20.0	BRL	98	70-130	2	20
Di-isopropyl ether	**19.8**	D	µg/l		20.0	BRL	99	70-130	5	20
Tert-Butanol / butyl alcohol	**192**	D	µg/l		200	BRL	96	70-130	5	20
1,4-Dioxane	**158**	D	µg/l		200	BRL	79	70-130	6	20
trans-1,4-Dichloro-2-butene	**20.8**	D	µg/l		20.0	BRL	104	70-130	6	20
Ethanol	**336**	D	µg/l		400	BRL	84	70-130	6	20
Surrogate: 4-Bromofluorobenzene	*52.5*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.8*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*51.8*		µg/l		*50.0*		*104*	*70-130*		
Batch 1514916 - SW846 5030 Water MS										
Blank (1514916-BLK1)					Prepared & Analyzed: 03-Aug-15					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514916 - SW846 5030 Water MS										
Blank (1514916-BLK1)					Prepared & Analyzed: 03-Aug-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514916 - SW846 5030 Water MS										
Blank (1514916-BLK1)					Prepared & Analyzed: 03-Aug-15					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*48.3*		µg/l		*50.0*		*97*	*70-130*		
Surrogate: Toluene-d8	*48.7*		µg/l		*50.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.8*		µg/l		*50.0*		*108*	*70-130*		
Surrogate: Dibromofluoromethane	*53.6*		µg/l		*50.0*		*107*	*70-130*		
LCS (1514916-BS1)		QM10			Prepared & Analyzed: 03-Aug-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.4**		µg/l		20.0		97	70-130		
Acetone	**16.9**		µg/l		20.0		84	70-130		
Acrylonitrile	**17.8**		µg/l		20.0		89	70-130		
Benzene	**21.4**		µg/l		20.0		107	70-130		
Bromobenzene	**21.6**		µg/l		20.0		108	70-130		
Bromochloromethane	**20.9**		µg/l		20.0		104	70-130		
Bromodichloromethane	**22.0**		µg/l		20.0		110	70-130		
Bromoform	**21.4**		µg/l		20.0		107	70-130		
Bromomethane	**20.5**		µg/l		20.0		102	70-130		
2-Butanone (MEK)	**18.9**		µg/l		20.0		94	70-130		
n-Butylbenzene	**16.9**		µg/l		20.0		84	70-130		
sec-Butylbenzene	**19.8**		µg/l		20.0		99	70-130		
tert-Butylbenzene	**19.7**		µg/l		20.0		98	70-130		
Carbon disulfide	**22.9**		µg/l		20.0		115	70-130		
Carbon tetrachloride	**21.2**		µg/l		20.0		106	70-130		
Chlorobenzene	**20.6**		µg/l		20.0		103	70-130		
Chloroethane	**19.4**		µg/l		20.0		97	70-130		
Chloroform	**21.0**		µg/l		20.0		105	70-130		
Chloromethane	**20.9**		µg/l		20.0		105	70-130		
2-Chlorotoluene	**20.3**		µg/l		20.0		102	70-130		
4-Chlorotoluene	**19.8**		µg/l		20.0		99	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514916 - SW846 5030 Water MS										
LCS (1514916-BS1)		QM10			Prepared & Analyzed: 03-Aug-15					
1,2-Dibromo-3-chloropropane	**17.3**		µg/l		20.0		87	70-130		
Dibromochloromethane	**24.5**		µg/l		20.0		122	70-130		
1,2-Dibromoethane (EDB)	**22.2**		µg/l		20.0		111	70-130		
Dibromomethane	**21.3**		µg/l		20.0		106	70-130		
1,2-Dichlorobenzene	**20.2**		µg/l		20.0		101	70-130		
1,3-Dichlorobenzene	**22.8**		µg/l		20.0		114	70-130		
1,4-Dichlorobenzene	**18.8**		µg/l		20.0		94	70-130		
Dichlorodifluoromethane (Freon12)	**19.4**		µg/l		20.0		97	70-130		
1,1-Dichloroethane	**17.5**		µg/l		20.0		87	70-130		
1,2-Dichloroethane	**20.5**		µg/l		20.0		102	70-130		
1,1-Dichloroethene	**21.4**		µg/l		20.0		107	70-130		
cis-1,2-Dichloroethene	**21.8**		µg/l		20.0		109	70-130		
trans-1,2-Dichloroethene	**20.4**		µg/l		20.0		102	70-130		
1,2-Dichloropropane	**21.0**		µg/l		20.0		105	70-130		
1,3-Dichloropropane	**20.4**		µg/l		20.0		102	70-130		
2,2-Dichloropropane	**27.9**	QM9	µg/l		20.0		139	70-130		
1,1-Dichloropropene	**17.7**		µg/l		20.0		89	70-130		
cis-1,3-Dichloropropene	**21.2**		µg/l		20.0		106	70-130		
trans-1,3-Dichloropropene	**22.0**		µg/l		20.0		110	70-130		
Ethylbenzene	**19.3**		µg/l		20.0		96	70-130		
Hexachlorobutadiene	**19.6**		µg/l		20.0		98	70-130		
2-Hexanone (MBK)	**17.9**		µg/l		20.0		90	70-130		
Isopropylbenzene	**20.3**		µg/l		20.0		101	70-130		
4-Isopropyltoluene	**16.6**		µg/l		20.0		83	70-130		
Methyl tert-butyl ether	**19.5**		µg/l		20.0		98	70-130		
4-Methyl-2-pentanone (MIBK)	**18.0**		µg/l		20.0		90	70-130		
Methylene chloride	**19.1**		µg/l		20.0		96	70-130		
Naphthalene	**16.6**		µg/l		20.0		83	70-130		
n-Propylbenzene	**18.3**		µg/l		20.0		92	70-130		
Styrene	**18.4**		µg/l		20.0		92	70-130		
1,1,1,2-Tetrachloroethane	**22.3**		µg/l		20.0		111	70-130		
1,1,2,2-Tetrachloroethane	**19.7**		µg/l		20.0		98	70-130		
Tetrachloroethene	**22.2**		µg/l		20.0		111	70-130		
Toluene	**21.1**		µg/l		20.0		106	70-130		
1,2,3-Trichlorobenzene	**16.2**		µg/l		20.0		81	70-130		
1,2,4-Trichlorobenzene	**15.7**		µg/l		20.0		78	70-130		
1,3,5-Trichlorobenzene	**15.6**		µg/l		20.0		78	70-130		
1,1,1-Trichloroethane	**22.2**		µg/l		20.0		111	70-130		
1,1,2-Trichloroethane	**20.4**		µg/l		20.0		102	70-130		
Trichloroethene	**22.0**		µg/l		20.0		110	70-130		
Trichlorofluoromethane (Freon 11)	**19.3**		µg/l		20.0		97	70-130		
1,2,3-Trichloropropane	**20.5**		µg/l		20.0		102	70-130		
1,2,4-Trimethylbenzene	**19.5**		µg/l		20.0		97	70-130		
1,3,5-Trimethylbenzene	**19.1**		µg/l		20.0		95	70-130		
Vinyl chloride	**20.0**		µg/l		20.0		100	70-130		
m,p-Xylene	**19.8**		µg/l		20.0		99	70-130		
o-Xylene	**21.1**		µg/l		20.0		105	70-130		
Tetrahydrofuran	**18.3**		µg/l		20.0		91	70-130		
Ethyl ether	**19.0**		µg/l		20.0		95	70-130		
Tert-amyl methyl ether	**18.7**		µg/l		20.0		93	70-130		
Ethyl tert-butyl ether	**22.8**		µg/l		20.0		114	70-130		
Di-isopropyl ether	**22.7**		µg/l		20.0		113	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514916 - SW846 5030 Water MS										
LCS (1514916-BS1)		QM10				Prepared & Analyzed: 03-Aug-15				
Tert-Butanol / butyl alcohol	**211**		µg/l		200		105	70-130		
1,4-Dioxane	**172**		µg/l		200		86	70-130		
trans-1,4-Dichloro-2-butene	**23.9**		µg/l		20.0		119	70-130		
Ethanol	**335**		µg/l		400		84	70-130		
Surrogate: 4-Bromofluorobenzene	*53.8*		µg/l		*50.0*		*108*	*70-130*		
Surrogate: Toluene-d8	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*50.9*		µg/l		*50.0*		*102*	*70-130*		
LCS Dup (1514916-BSD1)		QM10				Prepared & Analyzed: 03-Aug-15				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**17.2**		µg/l		20.0		86	70-130	12	20
Acetone	**16.3**		µg/l		20.0		81	70-130	4	20
Acrylonitrile	**17.1**		µg/l		20.0		85	70-130	4	20
Benzene	**19.4**		µg/l		20.0		97	70-130	10	20
Bromobenzene	**20.2**		µg/l		20.0		101	70-130	7	20
Bromochloromethane	**19.6**		µg/l		20.0		98	70-130	6	20
Bromodichloromethane	**20.4**		µg/l		20.0		102	70-130	8	20
Bromoform	**20.5**		µg/l		20.0		103	70-130	4	20
Bromomethane	**18.6**		µg/l		20.0		93	70-130	10	20
2-Butanone (MEK)	**19.7**		µg/l		20.0		99	70-130	4	20
n-Butylbenzene	**14.8**		µg/l		20.0		74	70-130	13	20
sec-Butylbenzene	**17.3**		µg/l		20.0		86	70-130	13	20
tert-Butylbenzene	**17.3**		µg/l		20.0		86	70-130	13	20
Carbon disulfide	**20.1**		µg/l		20.0		100	70-130	13	20
Carbon tetrachloride	**19.0**		µg/l		20.0		95	70-130	11	20
Chlorobenzene	**19.1**		µg/l		20.0		95	70-130	8	20
Chloroethane	**17.1**		µg/l		20.0		85	70-130	13	20
Chloroform	**18.8**		µg/l		20.0		94	70-130	11	20
Chloromethane	**18.2**		µg/l		20.0		91	70-130	14	20
2-Chlorotoluene	**18.4**		µg/l		20.0		92	70-130	10	20
4-Chlorotoluene	**18.0**		µg/l		20.0		90	70-130	10	20
1,2-Dibromo-3-chloropropane	**16.3**		µg/l		20.0		82	70-130	6	20
Dibromochloromethane	**22.7**		µg/l		20.0		113	70-130	8	20
1,2-Dibromoethane (EDB)	**21.2**		µg/l		20.0		106	70-130	4	20
Dibromomethane	**20.1**		µg/l		20.0		100	70-130	6	20
1,2-Dichlorobenzene	**18.6**		µg/l		20.0		93	70-130	8	20
1,3-Dichlorobenzene	**20.6**		µg/l		20.0		103	70-130	10	20
1,4-Dichlorobenzene	**17.5**		µg/l		20.0		87	70-130	7	20
Dichlorodifluoromethane (Freon12)	**17.0**		µg/l		20.0		85	70-130	13	20
1,1-Dichloroethane	**15.7**		µg/l		20.0		78	70-130	11	20
1,2-Dichloroethane	**18.9**		µg/l		20.0		95	70-130	8	20
1,1-Dichloroethene	**19.0**		µg/l		20.0		95	70-130	12	20
cis-1,2-Dichloroethene	**20.0**		µg/l		20.0		100	70-130	9	20
trans-1,2-Dichloroethene	**18.4**		µg/l		20.0		92	70-130	10	20
1,2-Dichloropropane	**19.1**		µg/l		20.0		96	70-130	9	20
1,3-Dichloropropane	**19.2**		µg/l		20.0		96	70-130	6	20
2,2-Dichloropropane	**23.7**		µg/l		20.0		119	70-130	16	20
1,1-Dichloropropene	**16.1**		µg/l		20.0		81	70-130	9	20
cis-1,3-Dichloropropene	**19.6**		µg/l		20.0		98	70-130	8	20
trans-1,3-Dichloropropene	**20.7**		µg/l		20.0		103	70-130	6	20
Ethylbenzene	**17.5**		µg/l		20.0		87	70-130	10	20
Hexachlorobutadiene	**16.8**		µg/l		20.0		84	70-130	15	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514916 - SW846 5030 Water MS										
LCS Dup (1514916-BSD1)		QM10			Prepared & Analyzed: 03-Aug-15					
2-Hexanone (MBK)	**16.8**		µg/l		20.0		84	70-130	6	20
Isopropylbenzene	**18.2**		µg/l		20.0		91	70-130	11	20
4-Isopropyltoluene	**15.0**		µg/l		20.0		75	70-130	10	20
Methyl tert-butyl ether	**18.5**		µg/l		20.0		92	70-130	5	20
4-Methyl-2-pentanone (MIBK)	**17.7**		µg/l		20.0		89	70-130	2	20
Methylene chloride	**17.6**		µg/l		20.0		88	70-130	8	20
Naphthalene	**15.6**		µg/l		20.0		78	70-130	6	20
n-Propylbenzene	**16.2**		µg/l		20.0		81	70-130	12	20
Styrene	**17.0**		µg/l		20.0		85	70-130	8	20
1,1,1,2-Tetrachloroethane	**20.2**		µg/l		20.0		101	70-130	10	20
1,1,2,2-Tetrachloroethane	**18.5**		µg/l		20.0		92	70-130	6	20
Tetrachloroethene	**20.3**		µg/l		20.0		101	70-130	9	20
Toluene	**19.1**		µg/l		20.0		96	70-130	10	20
1,2,3-Trichlorobenzene	**14.8**		µg/l		20.0		74	70-130	9	20
1,2,4-Trichlorobenzene	**14.5**		µg/l		20.0		73	70-130	7	20
1,3,5-Trichlorobenzene	**14.0**		µg/l		20.0		70	70-130	11	20
1,1,1-Trichloroethane	**20.0**		µg/l		20.0		100	70-130	11	20
1,1,2-Trichloroethane	**19.1**		µg/l		20.0		96	70-130	6	20
Trichloroethene	**19.6**		µg/l		20.0		98	70-130	12	20
Trichlorofluoromethane (Freon 11)	**17.0**		µg/l		20.0		85	70-130	13	20
1,2,3-Trichloropropane	**19.4**		µg/l		20.0		97	70-130	5	20
1,2,4-Trimethylbenzene	**17.6**		µg/l		20.0		88	70-130	10	20
1,3,5-Trimethylbenzene	**17.3**		µg/l		20.0		86	70-130	10	20
Vinyl chloride	**16.7**		µg/l		20.0		84	70-130	18	20
m,p-Xylene	**18.1**		µg/l		20.0		91	70-130	9	20
o-Xylene	**19.2**		µg/l		20.0		96	70-130	9	20
Tetrahydrofuran	**17.8**		µg/l		20.0		89	70-130	2	20
Ethyl ether	**17.6**		µg/l		20.0		88	70-130	8	20
Tert-amyl methyl ether	**17.4**		µg/l		20.0		87	70-130	7	20
Ethyl tert-butyl ether	**20.8**		µg/l		20.0		104	70-130	9	20
Di-isopropyl ether	**20.5**		µg/l		20.0		102	70-130	10	20
Tert-Butanol / butyl alcohol	**201**		µg/l		200		101	70-130	5	20
1,4-Dioxane	**164**		µg/l		200		82	70-130	5	20
trans-1,4-Dichloro-2-butene	**23.0**		µg/l		20.0		115	70-130	4	20
Ethanol	**321**		µg/l		400		80	70-130	4	20
Surrogate: 4-Bromofluorobenzene	*53.2*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Toluene-d8	*51.6*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.3*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*50.5*		µg/l		*50.0*		*101*	*70-130*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1514829 - SW846 3510C										
Blank (1514829-BLK1)					Prepared: 31-Jul-15 Analyzed: 03-Aug-15					
Gasoline	< 0.2		mg/l	0.2						
Fuel Oil #2	< 0.2		mg/l	0.2						
Fuel Oil #4	< 0.2		mg/l	0.2						
Fuel Oil #6	< 0.2		mg/l	0.2						
Motor Oil	< 0.2		mg/l	0.2						
Ligroin	< 0.2		mg/l	0.2						
Aviation Fuel	< 0.2		mg/l	0.2						
Hydraulic Oil	< 0.2		mg/l	0.2						
Dielectric Fluid	< 0.2		mg/l	0.2						
Unidentified	< 0.2		mg/l	0.2						
Other Oil	< 0.2		mg/l	0.2						
Total Petroleum Hydrocarbons	< 0.2		mg/l	0.2						
Surrogate: 1-Chlorooctadecane	*0.0423*		mg/l		*0.0500*		*85*	*40-140*		
LCS (1514829-BS2)					Prepared: 31-Jul-15 Analyzed: 03-Aug-15					
Fuel Oil #2	**2.4**		mg/l	0.2	2.00		119	40-140		
Surrogate: 1-Chlorooctadecane	*0.0660*		mg/l		*0.0500*		*132*	*40-140*		
LCS Dup (1514829-BSD2)					Prepared: 31-Jul-15 Analyzed: 03-Aug-15					
Fuel Oil #2	**2.6**		mg/l	0.2	2.00		130	40-140	9	200
Surrogate: 1-Chlorooctadecane	*0.0685*		mg/l		*0.0500*		*137*	*40-140*		

Notes and Definitions

D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM10	LCS/LCSD were analyzed in place of MS/MSD.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR5	RPD out of acceptance range.
R02	Elevated Reporting Limits due to limited sample volume.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as Calculated as.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Rebecca Merz

SC16016 JLH

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

☐ Standard TAT - 7 to 10 business days
☑ Rush TAT - Date Needed: 8/5/15
5 day
All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: ECS - Waterbury
Telephone #: 802-241-4131
Project Mgr: EUrch

Invoice To: ECS - Agawam
P.O No.: 08-223948 ~~08-215140~~ EGU
Quote/RQN: ~~6945~~ 6945 Special EGU

Project No: 08-223948.00
Site Name: Poplawski Residence
Location: Rutland State: VT
Sampler(s): EUrch

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

List Preservative Code below: 2 2

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

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	8260	8100 w/Field ID	Check if chlorinated
SC16016-01	Trip blank EGU	7/28/15	800	G	DI	1				X		☐
02	17 Melrose ~~Sump~~ Garage EGU	7/28/15	1145	G	GW	3	1			X	X	☐
03	12 North Sump	7/28/15	1210	G	GW	3	1			X	X	☐
04	9 North Basement	7/28/15	1230	G	GW	3	1			X	X	☐
05	14 North Yard	7/28/15	1245	G	GW	3	1			X	X	☐

QA/QC Reporting Notes:
* additional charges may appply

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

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	7/29/15	900
[signature]	UPS	7/29/15	17:00
UPS	[signature]	7/30/15	1035

Temp °C: Observed 5.8; Correction Factor 0; Corrected 5.8; IR ID # 01

☐ EDD format:
☒ E-mail to: eurch@ecsconsult.com

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

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS StoreÂ®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, UPS Alliances (Office DepotÂ® or StaplesÂ®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
THE UPS STORE
112 S MAIN ST
STOWE ,VT 05672

FOLD HERE

AMY BETH CONNELL
8024344500
ECS WATERBURY
1 ELM STREET
WATERBURY VT 05676

20 LBS 1 OF 1

SHIP TO:
LAB
413 789 9018
SPECTRUM ANALYTICAL
11 ALMGREN DRIVE
AGAWAM MA 01001-3831

MA 011 9-06

UPS NEXT DAY AIR 1

TRACKING #: 1Z F31 7E5 01 9211 1329

BILLING: F/C BILL RECIEVER

Location Reference: 0008
Project Number: samples

CS 17.5.27. WNTNV90 66.0A 07/2015

Report Date:
31-Aug-15 12:44

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Environmental Compliance Services
1 Elm St. Suite 3
Waterbury, VT 05676
Attn: Erik Urch

Project: Poplawski Residence - Rutland, VT
Project #: 08-223948.00

Laboratory ID	Client Sample ID	Container	Matrix	Date Sampled	Date Received
SC11570-01	IA-2 FLOOR	Summa canister 6 liter	Indoor/ Ambient Air	19-Aug-15 12:09	21-Aug-15 13:35
SC11570-02	IA- Basement	Summa canister 6 liter	Indoor/ Ambient Air	19-Aug-15 12:19	21-Aug-15 13:35
SC11570-03	IA- 1 Floor	Summa canister 6 liter	Indoor/ Ambient Air	19-Aug-15 12:11	21-Aug-15 13:35

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00098
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 29 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

Samples are received and the pressure is recorded from the gauge on the canister. If a canister does not have a gauge, a vacuum gauge is attached to the valve and pressure is recorded. If the canister is below -10 psig, the can must be pressurized to 0 psig. Tedlar bags do not have the pressure recorded. The can pressure can be located within this report in the sample header information.

If a Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA TO-15

Calibration:

1508042

Analyte quantified by quadratic equation type calibration.

1,2,4-Trimethylbenzene
4-Ethyltoluene
Ethanol

This affected the following samples:

1516600-BLK1
1516600-BS1
1516600-DUP1
IA- 1 Floor
IA- Basement
IA-2 FLOOR
S507925-ICV1
S507982-CCV1

Samples:

SC11570-01 *IA-2 FLOOR*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC11570-02 *IA- Basement*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC11570-03 *IA- 1 Floor*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

EPA TO-15L

Calibration:

1508041

EPA TO-15L

Calibration:

1508041

Analyte quantified by quadratic equation type calibration.

1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichlorotrifluoroethane (Freon 113)
1,1-Dichloroethane
1,1-Dichloroethene
1,2,4-Trichlorobenzene
1,2-Dichloroethane
1,2-Dichlorotetrafluoroethane (Freon 114)
2-Butanone (MEK)
Benzene
Benzyl chloride
Bromoform
Bromomethane
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
Cyclohexane
Dichlorodifluoromethane (Freon12)
Ethyl acetate
Hexachlorobutadiene
Hexane
Isopropyl alcohol
Methyl tert-butyl ether
Methylene chloride
Naphthalene
n-Heptane
Propene
Tetrahydrofuran
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichlorofluoromethane (Freon 11)

This affected the following samples:

1516468-BLK1
1516468-BS1
1516588-BLK1
1516588-BS1
IA- 1 Floor
IA- Basement
IA-2 FLOOR
S507685-ICV1
S507943-CCV1
S507981-CCV1

Blanks:

1516468-BLK1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

EPA TO-15L

Blanks:

1516468-BLK1

This compound is a common laboratory contaminant.

Methylene chloride

1516588-BLK1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

This compound is a common laboratory contaminant.

Methylene chloride

Laboratory Control Samples:

1516468-BS1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

1516588-BS1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

Samples:

SC11570-01 *IA-2 FLOOR*

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

Ethanol

SC11570-02 *IA- Basement*

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
4-Ethyltoluene
Chloroform
Cyclohexane
Hexane
m,p-Xylene
o-Xylene
Toluene

SC11570-03 *IA- 1 Floor*

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

EPA TO-15L

Samples:

SC11570-03 *IA- 1 Floor*

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

Ethanol
Ethyl acetate

Sample Acceptance Check Form

Client:	Environmental Compliance Services - Waterbury, VT
Project:	Poplawski Residence - Rutland, VT / 08-223948.00
Work Order:	SC11570
Sample(s) received on:	8/21/2015

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☐	☑	☐
Were custody seals intact?	☐	☐	☑
Were samples received at a temperature of ≤ 6°C?	☐	☐	☑
Were samples cooled on ice upon transfer to laboratory representative?	☐	☐	☑
Were samples refrigerated upon transfer to laboratory representative?	☐	☐	☑
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC11570-01 **Client ID:** IA-2 FLOOR

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Ethanol	224	D	5.00	ppbv	EPA TO-15
1,1,2-Trichlorotrifluoroethane (Freon 113)	0.120		0.100	ppbv	EPA TO-15L
1,2,4-Trimethylbenzene	1.94		0.100	ppbv	EPA TO-15L
1,3,5-Trimethylbenzene	0.870		0.100	ppbv	EPA TO-15L
2-Butanone (MEK)	1.26		0.100	ppbv	EPA TO-15L
2-Hexanone (MBK)	0.110		0.100	ppbv	EPA TO-15L
4-Ethyltoluene	1.01		0.100	ppbv	EPA TO-15L
4-Isopropyltoluene	0.340		0.100	ppbv	EPA TO-15L
4-Methyl-2-pentanone (MIBK)	0.290		0.100	ppbv	EPA TO-15L
Acetone	8.42		0.500	ppbv	EPA TO-15L
Benzene	0.270		0.100	ppbv	EPA TO-15L
Carbon tetrachloride	0.160		0.100	ppbv	EPA TO-15L
Chloroform	1.21		0.100	ppbv	EPA TO-15L
Cyclohexane	0.750		0.100	ppbv	EPA TO-15L
Ethanol	329	E	0.500	ppbv	EPA TO-15L
Ethyl acetate	9.11		0.100	ppbv	EPA TO-15L
Ethylbenzene	0.300		0.100	ppbv	EPA TO-15L
Hexane	2.97		0.500	ppbv	EPA TO-15L
Isopropyl alcohol	3.04		0.500	ppbv	EPA TO-15L
Isopropylbenzene	0.160		0.100	ppbv	EPA TO-15L
m,p-Xylene	3.34		0.200	ppbv	EPA TO-15L
Methylene chloride	0.800	B	0.100	ppbv	EPA TO-15L
n-Butylbenzene	0.120		0.100	ppbv	EPA TO-15L
o-Xylene	1.12		0.100	ppbv	EPA TO-15L
Styrene	0.150		0.100	ppbv	EPA TO-15L
Toluene	1.72		0.100	ppbv	EPA TO-15L
Trichlorofluoromethane (Freon 11)	0.380		0.100	ppbv	EPA TO-15L

Lab ID: SC11570-02 **Client ID:** IA- Basement

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	41.4	D	2.00	ppbv	EPA TO-15
1,3,5-Trimethylbenzene	22.6	D	2.00	ppbv	EPA TO-15
4-Ethyltoluene	31.5	D	2.00	ppbv	EPA TO-15
Chloroform	17.5	D	2.00	ppbv	EPA TO-15
Cyclohexane	17.8	D	2.00	ppbv	EPA TO-15
Hexane	21.1	D	2.00	ppbv	EPA TO-15
m,p-Xylene	120	D	4.00	ppbv	EPA TO-15
o-Xylene	38.8	D	2.00	ppbv	EPA TO-15
Toluene	16.3	D	2.00	ppbv	EPA TO-15
1,1,2-Trichlorotrifluoroethane (Freon 113)	0.130		0.100	ppbv	EPA TO-15L
1,2,4-Trimethylbenzene	48.4	E	0.100	ppbv	EPA TO-15L
1,2-Dichloroethane	0.470		0.100	ppbv	EPA TO-15L
1,3,5-Trimethylbenzene	22.0	E	0.100	ppbv	EPA TO-15L
2-Butanone (MEK)	1.36		0.100	ppbv	EPA TO-15L
4-Ethyltoluene	37.6	E	0.100	ppbv	EPA TO-15L
4-Isopropyltoluene	1.13		0.100	ppbv	EPA TO-15L
Benzene	0.980		0.100	ppbv	EPA TO-15L
Carbon tetrachloride	0.130		0.100	ppbv	EPA TO-15L
Chloroform	12.6	E	0.100	ppbv	EPA TO-15L
Cyclohexane	13.4	E	0.100	ppbv	EPA TO-15L
Dichlorodifluoromethane (Freon12)	0.420		0.100	ppbv	EPA TO-15L
Ethanol	4.13		0.500	ppbv	EPA TO-15L
Ethyl acetate	8.74		0.100	ppbv	EPA TO-15L
Ethylbenzene	7.79		0.100	ppbv	EPA TO-15L
Hexane	22.6	E	0.500	ppbv	EPA TO-15L
Isopropyl alcohol	1.32		0.500	ppbv	EPA TO-15L
Isopropylbenzene	7.09		0.100	ppbv	EPA TO-15L
m,p-Xylene	121	E	0.200	ppbv	EPA TO-15L
Methylene chloride	1.03	B	0.100	ppbv	EPA TO-15L
n-Butylbenzene	3.17		0.100	ppbv	EPA TO-15L
o-Xylene	39.9	E	0.100	ppbv	EPA TO-15L
Toluene	13.3	E	0.100	ppbv	EPA TO-15L
Trichlorofluoromethane (Freon 11)	0.350		0.100	ppbv	EPA TO-15L

Lab ID: SC11570-03 **Client ID:** IA- 1 Floor

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Ethanol	77.4	D	2.50	ppbv	EPA TO-15
Ethyl acetate	19.4	D	2.50	ppbv	EPA TO-15
1,1,2-Trichlorotrifluoroethane (Freon 113)	0.120		0.100	ppbv	EPA TO-15L
1,2,4-Trimethylbenzene	2.49		0.100	ppbv	EPA TO-15L
1,2-Dichloroethane	0.250		0.100	ppbv	EPA TO-15L
1,3,5-Trimethylbenzene	1.21		0.100	ppbv	EPA TO-15L
2-Butanone (MEK)	1.13		0.100	ppbv	EPA TO-15L
2-Hexanone (MBK)	0.110		0.100	ppbv	EPA TO-15L
4-Ethyltoluene	1.40		0.100	ppbv	EPA TO-15L
4-Isopropyltoluene	0.290		0.100	ppbv	EPA TO-15L
4-Methyl-2-pentanone (MIBK)	0.150		0.100	ppbv	EPA TO-15L
Benzene	0.390		0.100	ppbv	EPA TO-15L
Carbon disulfide	0.630		0.500	ppbv	EPA TO-15L
Carbon tetrachloride	0.140		0.100	ppbv	EPA TO-15L
Chloroform	1.71		0.100	ppbv	EPA TO-15L
Cyclohexane	0.920		0.100	ppbv	EPA TO-15L
Ethanol	116	E	0.500	ppbv	EPA TO-15L
Ethyl acetate	14.3	E	0.100	ppbv	EPA TO-15L
Ethylbenzene	0.440		0.100	ppbv	EPA TO-15L
Hexane	4.79		0.500	ppbv	EPA TO-15L
Isopropyl alcohol	2.81		0.500	ppbv	EPA TO-15L
Isopropylbenzene	0.230		0.100	ppbv	EPA TO-15L
m,p-Xylene	4.76		0.200	ppbv	EPA TO-15L
Methylene chloride	0.740	B	0.100	ppbv	EPA TO-15L
n-Butylbenzene	0.160		0.100	ppbv	EPA TO-15L
o-Xylene	1.68		0.100	ppbv	EPA TO-15L
Styrene	0.160		0.100	ppbv	EPA TO-15L
Tetrahydrofuran	0.190		0.100	ppbv	EPA TO-15L
Toluene	2.76		0.100	ppbv	EPA TO-15L
Trichlorofluoromethane (Freon 11)	0.320		0.100	ppbv	EPA TO-15L

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-2 FLOOR	08-223948.00	Indoor/ Ambient Air	19-Aug-15 12:09	21-Aug-15
SC11570-01				

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 29-Aug-15 Dilution: 10			GS1	Can pressure: -1 Can ID: 5588				
64-17-5	Ethanol	**224**	5.00	**422.35**	9.43	D	EPA TO-15	29-Aug-15	BRF	1516600	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*84*		*70-130 %*			"	"	"	"	
Volatile Organics in Air Low Level		ppbv	Prepared 28-Aug-15 Dilution: 1				Can pressure: -1 Can ID: 5588				
115-07-1	Propene	< 0.100	0.100	< 0.17	0.17		EPA TO-15L	28-Aug-15	BRF	1516588	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.100	0.100	< 0.49	0.49		"	"	"	"	X
74-87-3	Chloromethane	< 0.100	0.100	< 0.21	0.21		"	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100	0.100	< 0.70	0.70		"	"	"	"	X
75-01-4	Vinyl chloride	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
106-99-0	1,3-Butadiene	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
74-83-9	Bromomethane	< 0.100	0.100	< 0.39	0.39		"	"	"	"	X
75-00-3	Chloroethane	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
67-64-1	Acetone	**8.42**	0.500	**20.01**	1.19		"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	**0.380**	0.100	**2.14**	0.56		"	"	"	"	X
64-17-5	Ethanol	**329**	0.500	**620.32**	0.94	E	"	"	"	"	
107-13-1	Acrylonitrile	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-09-2	Methylene chloride	**0.800**	0.100	**2.78**	0.35	B	"	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	**0.120**	0.100	**0.92**	0.77		"	"	"	"	X
75-15-0	Carbon disulfide	< 0.500	0.500	< 1.56	1.56		"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.100	0.100	< 0.36	0.36		"	"	"	"	X
67-63-0	Isopropyl alcohol	**3.04**	0.500	**7.46**	1.23		"	"	"	"	X
78-93-3	2-Butanone (MEK)	**1.26**	0.100	**3.72**	0.29		"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
110-54-3	Hexane	**2.97**	0.500	**10.47**	1.76		"	"	"	"	X
141-78-6	Ethyl acetate	**9.11**	0.100	**32.83**	0.36		"	"	"	"	
67-66-3	Chloroform	**1.21**	0.100	**5.89**	0.49		"	"	"	"	X
109-99-9	Tetrahydrofuran	< 0.100	0.100	< 0.29	0.29		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
71-43-2	Benzene	**0.270**	0.100	**0.86**	0.32		"	"	"	"	X
56-23-5	Carbon tetrachloride	**0.160**	0.100	**1.01**	0.63		"	"	"	"	X
110-82-7	Cyclohexane	**0.750**	0.100	**2.58**	0.34		"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.100	0.100	< 0.67	0.67		"	"	"	"	X
79-01-6	Trichloroethene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	X
123-91-1	1,4-Dioxane	< 0.500	0.500	< 1.80	1.80		"	"	"	"	X
142-82-5	n-Heptane	< 0.100	0.100	< 0.41	0.41		"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	**0.290**	0.100	**1.19**	0.41		"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-2 FLOOR	08-223948.00	Indoor/ Ambient Air	19-Aug-15 12:09	21-Aug-15
SC11570-01				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air Low Level		ppbv	Prepared 28-Aug-15 Dilution: 1				Can pressure: -1 Can ID: 5588				
79-00-5	1,1,2-Trichloroethane	< 0.100	0.100	< 0.55	0.55		EPA TO-15L	28-Aug-15	BRF	1516588	X
108-88-3	Toluene	**1.72**	0.100	**6.47**	0.38		"	"	"	"	X
591-78-6	2-Hexanone (MBK)	**0.110**	0.100	**0.45**	0.41		"	"	"	"	
124-48-1	Dibromochloromethane	< 0.100	0.100	< 0.85	0.85		"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.100	0.100	< 0.77	0.77		"	"	"	"	
127-18-4	Tetrachloroethene	< 0.100	0.100	< 0.68	0.68		"	"	"	"	X
108-90-7	Chlorobenzene	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	
100-41-4	Ethylbenzene	**0.300**	0.100	**1.30**	0.43		"	"	"	"	X
179601-23-1	m,p-Xylene	**3.34**	0.200	**14.48**	0.87		"	"	"	"	X
75-25-2	Bromoform	< 0.100	0.100	< 1.03	1.03		"	"	"	"	X
100-42-5	Styrene	**0.150**	0.100	**0.64**	0.43		"	"	"	"	X
95-47-6	o-Xylene	**1.12**	0.100	**4.86**	0.43		"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	X
98-82-8	Isopropylbenzene	**0.160**	0.100	**0.79**	0.49		"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**0.870**	0.100	**4.28**	0.49		"	"	"	"	X
622-96-8	4-Ethyltoluene	**1.01**	0.100	**4.97**	0.49		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**1.94**	0.100	**9.54**	0.49		"	"	"	"	X
91-20-3	Naphthalene	< 0.500	0.500	< 2.62	2.62		"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
100-44-7	Benzyl chloride	< 0.100	0.100	< 0.52	0.52		"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
99-87-6	4-Isopropyltoluene	**0.340**	0.100	**1.82**	0.54		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
104-51-8	n-Butylbenzene	**0.120**	0.100	**0.66**	0.55		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.100	0.100	< 0.74	0.74		"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.100	0.100	< 1.07	1.07		"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*102*		*70-130 %*			"	"	"	"	

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA- Basement	08-223948.00	Indoor/ Ambient Air	19-Aug-15 12:19	21-Aug-15
SC11570-02				

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 29-Aug-15 Dilution: 4			GS1	Can pressure: -2 Can ID: 1657				
110-54-3	Hexane	**21.1**	2.00	**74.39**	7.05	D	EPA TO-15	29-Aug-15	BRF	1516600	X
67-66-3	Chloroform	**17.5**	2.00	**85.17**	9.73	D	"	"	"	"	X
110-82-7	Cyclohexane	**17.8**	2.00	**61.27**	6.88	D	"	"	"	"	X
108-88-3	Toluene	**16.3**	2.00	**61.33**	7.53	D	"	"	"	"	X
179601-23-1	m,p-Xylene	**120**	4.00	**520.25**	17.34	D	"	"	"	"	X
95-47-6	o-Xylene	**38.8**	2.00	**168.21**	8.67	D	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**22.6**	2.00	**111.11**	9.83	D	"	"	"	"	X
622-96-8	4-Ethyltoluene	**31.5**	2.00	**154.86**	9.83	D	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**41.4**	2.00	**203.53**	9.83	D	"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*88*		*70-130 %*			"	"	"	"	
Volatile Organics in Air Low Level		ppbv	Prepared 27-Aug-15 Dilution: 1				Can pressure: -2 Can ID: 1657				
115-07-1	Propene	< 0.100	0.100	< 0.17	0.17		EPA TO-15L	27-Aug-15	BRF	1516468	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.420**	0.100	**2.08**	0.49		"	"	"	"	X
74-87-3	Chloromethane	< 0.100	0.100	< 0.21	0.21		"	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100	0.100	< 0.70	0.70		"	"	"	"	X
75-01-4	Vinyl chloride	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
106-99-0	1,3-Butadiene	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
74-83-9	Bromomethane	< 0.100	0.100	< 0.39	0.39		"	"	"	"	X
75-00-3	Chloroethane	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
67-64-1	Acetone	< 0.500	0.500	< 1.19	1.19		"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	**0.350**	0.100	**1.97**	0.56		"	"	"	"	X
64-17-5	Ethanol	**4.13**	0.500	**7.79**	0.94		"	"	"	"	
107-13-1	Acrylonitrile	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-09-2	Methylene chloride	**1.03**	0.100	**3.58**	0.35	B	"	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	**0.130**	0.100	**1.00**	0.77		"	"	"	"	X
75-15-0	Carbon disulfide	< 0.500	0.500	< 1.56	1.56		"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.100	0.100	< 0.36	0.36		"	"	"	"	X
67-63-0	Isopropyl alcohol	**1.32**	0.500	**3.24**	1.23		"	"	"	"	X
78-93-3	2-Butanone (MEK)	**1.36**	0.100	**4.01**	0.29		"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
110-54-3	Hexane	**22.6**	0.500	**79.68**	1.76	E	"	"	"	"	X
141-78-6	Ethyl acetate	**8.74**	0.100	**31.49**	0.36		"	"	"	"	
67-66-3	Chloroform	**12.6**	0.100	**61.33**	0.49	E	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 0.100	0.100	< 0.29	0.29		"	"	"	"	
107-06-2	1,2-Dichloroethane	**0.470**	0.100	**1.90**	0.40		"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
71-43-2	Benzene	**0.980**	0.100	**3.13**	0.32		"	"	"	"	X
56-23-5	Carbon tetrachloride	**0.130**	0.100	**0.82**	0.63		"	"	"	"	X
110-82-7	Cyclohexane	**13.4**	0.100	**46.12**	0.34	E	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA- Basement	08-223948.00	Indoor/ Ambient Air	19-Aug-15 12:19	21-Aug-15
SC11570-02				

Air Quality Analyses

Volatile Organics in Air Low Level — ppbv — Prepared 27-Aug-15 — Dilution: 1 — Can pressure: -2 — Can ID: 1657

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
78-87-5	1,2-Dichloropropane	< 0.100	0.100	< 0.46	0.46		EPA TO-15L	27-Aug-15	BRF	1516468	X
75-27-4	Bromodichloromethane	< 0.100	0.100	< 0.67	0.67		"	"	"	"	X
79-01-6	Trichloroethene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	X
123-91-1	1,4-Dioxane	< 0.500	0.500	< 1.80	1.80		"	"	"	"	X
142-82-5	n-Heptane	< 0.100	0.100	< 0.41	0.41		"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.100	0.100	< 0.41	0.41		"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
108-88-3	Toluene	**13.3**	0.100	**50.04**	0.38	E	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.100	0.100	< 0.41	0.41		"	"	"	"	
124-48-1	Dibromochloromethane	< 0.100	0.100	< 0.85	0.85		"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.100	0.100	< 0.77	0.77		"	"	"	"	
127-18-4	Tetrachloroethene	< 0.100	0.100	< 0.68	0.68		"	"	"	"	X
108-90-7	Chlorobenzene	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	
100-41-4	Ethylbenzene	**7.79**	0.100	**33.77**	0.43		"	"	"	"	X
179601-23-1	m,p-Xylene	**121**	0.200	**524.58**	0.87	E	"	"	"	"	X
75-25-2	Bromoform	< 0.100	0.100	< 1.03	1.03		"	"	"	"	X
100-42-5	Styrene	< 0.100	0.100	< 0.43	0.43		"	"	"	"	X
95-47-6	o-Xylene	**39.9**	0.100	**172.98**	0.43	E	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	X
98-82-8	Isopropylbenzene	**7.09**	0.100	**34.86**	0.49		"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**22.0**	0.100	**108.16**	0.49	E	"	"	"	"	X
622-96-8	4-Ethyltoluene	**37.6**	0.100	**184.85**	0.49	E	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**48.4**	0.100	**237.94**	0.49	E	"	"	"	"	X
91-20-3	Naphthalene	< 0.500	0.500	< 2.62	2.62		"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
100-44-7	Benzyl chloride	< 0.100	0.100	< 0.52	0.52		"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
99-87-6	4-Isopropyltoluene	**1.13**	0.100	**6.06**	0.54		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
104-51-8	n-Butylbenzene	**3.17**	0.100	**17.40**	0.55		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.100	0.100	< 0.74	0.74		"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.100	0.100	< 1.07	1.07		"	"	"	"	X

Surrogate recoveries:

460-00-4	*4-Bromofluorobenzene*	*110*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA- 1 Floor	08-223948.00	Indoor/ Ambient Air	19-Aug-15 12:11	21-Aug-15
SC11570-03				

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 29-Aug-15 Dilution: 5			GS1	Can pressure: -2 Can ID: 0258				
64-17-5	Ethanol	**77.4**	2.50	**145.94**	4.71	D	EPA TO-15	29-Aug-15	BRF	1516600	
141-78-6	Ethyl acetate	**19.4**	2.50	**69.90**	9.01	D	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*86*		*70-130 %*			"	"	"	"	
Volatile Organics in Air Low Level		ppbv	Prepared 27-Aug-15 Dilution: 1				Can pressure: -2 Can ID: 0258				
115-07-1	Propene	< 0.100	0.100	< 0.17	0.17		EPA TO-15L	27-Aug-15	BRF	1516468	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.100	0.100	< 0.49	0.49		"	"	"	"	X
74-87-3	Chloromethane	< 0.100	0.100	< 0.21	0.21		"	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100	0.100	< 0.70	0.70		"	"	"	"	X
75-01-4	Vinyl chloride	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
106-99-0	1,3-Butadiene	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
74-83-9	Bromomethane	< 0.100	0.100	< 0.39	0.39		"	"	"	"	X
75-00-3	Chloroethane	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
67-64-1	Acetone	< 0.500	0.500	< 1.19	1.19		"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	**0.320**	0.100	**1.80**	0.56		"	"	"	"	X
64-17-5	Ethanol	**116**	0.500	**218.72**	0.94	E	"	"	"	"	
107-13-1	Acrylonitrile	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-09-2	Methylene chloride	**0.740**	0.100	**2.57**	0.35	B	"	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	**0.120**	0.100	**0.92**	0.77		"	"	"	"	X
75-15-0	Carbon disulfide	**0.630**	0.500	**1.96**	1.56		"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.100	0.100	< 0.36	0.36		"	"	"	"	X
67-63-0	Isopropyl alcohol	**2.81**	0.500	**6.90**	1.23		"	"	"	"	X
78-93-3	2-Butanone (MEK)	**1.13**	0.100	**3.33**	0.29		"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
110-54-3	Hexane	**4.79**	0.500	**16.89**	1.76		"	"	"	"	X
141-78-6	Ethyl acetate	**14.3**	0.100	**51.53**	0.36	E	"	"	"	"	
67-66-3	Chloroform	**1.71**	0.100	**8.32**	0.49		"	"	"	"	X
109-99-9	Tetrahydrofuran	**0.190**	0.100	**0.56**	0.29		"	"	"	"	
107-06-2	1,2-Dichloroethane	**0.250**	0.100	**1.01**	0.40		"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
71-43-2	Benzene	**0.390**	0.100	**1.24**	0.32		"	"	"	"	X
56-23-5	Carbon tetrachloride	**0.140**	0.100	**0.88**	0.63		"	"	"	"	X
110-82-7	Cyclohexane	**0.920**	0.100	**3.17**	0.34		"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.100	0.100	< 0.67	0.67		"	"	"	"	X
79-01-6	Trichloroethene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	X
123-91-1	1,4-Dioxane	< 0.500	0.500	< 1.80	1.80		"	"	"	"	X
142-82-5	n-Heptane	< 0.100	0.100	< 0.41	0.41		"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	**0.150**	0.100	**0.61**	0.41		"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA- 1 Floor	08-223948.00	Indoor/ Ambient Air	19-Aug-15 12:11	21-Aug-15
SC11570-03				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air Low Level		ppbv	Prepared 27-Aug-15 Dilution: 1				Can pressure: -2 Can ID: 0258				
10061-02-6	trans-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		EPA TO-15L	27-Aug-15	BRF	1516468	X
79-00-5	1,1,2-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
108-88-3	Toluene	**2.76**	0.100	**10.39**	0.38		"	"	"	"	X
591-78-6	2-Hexanone (MBK)	**0.110**	0.100	**0.45**	0.41		"	"	"	"	
124-48-1	Dibromochloromethane	< 0.100	0.100	< 0.85	0.85		"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.100	0.100	< 0.77	0.77		"	"	"	"	
127-18-4	Tetrachloroethene	< 0.100	0.100	< 0.68	0.68		"	"	"	"	X
108-90-7	Chlorobenzene	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	
100-41-4	Ethylbenzene	**0.440**	0.100	**1.91**	0.43		"	"	"	"	X
179601-23-1	m,p-Xylene	**4.76**	0.200	**20.64**	0.87		"	"	"	"	X
75-25-2	Bromoform	< 0.100	0.100	< 1.03	1.03		"	"	"	"	X
100-42-5	Styrene	**0.160**	0.100	**0.68**	0.43		"	"	"	"	X
95-47-6	o-Xylene	**1.68**	0.100	**7.28**	0.43		"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	X
98-82-8	Isopropylbenzene	**0.230**	0.100	**1.13**	0.49		"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**1.21**	0.100	**5.95**	0.49		"	"	"	"	X
622-96-8	4-Ethyltoluene	**1.40**	0.100	**6.88**	0.49		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**2.49**	0.100	**12.24**	0.49		"	"	"	"	X
91-20-3	Naphthalene	< 0.500	0.500	< 2.62	2.62		"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
100-44-7	Benzyl chloride	< 0.100	0.100	< 0.52	0.52		"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
99-87-6	4-Isopropyltoluene	**0.290**	0.100	**1.56**	0.54		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
104-51-8	n-Butylbenzene	**0.160**	0.100	**0.88**	0.55		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.100	0.100	< 0.74	0.74		"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.100	0.100	< 1.07	1.07		"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*105*		*70-130 %*			"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516468 - General Air Prep										
Blank (1516468-BLK1)					Prepared & Analyzed: 27-Aug-15					
Propene	< 0.100		ppbv	0.100						
Dichlorodifluoromethane (Freon12)	< 0.100		ppbv	0.100						
Chloromethane	< 0.100		ppbv	0.100						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100		ppbv	0.100						
Vinyl chloride	< 0.100		ppbv	0.100						
1,3-Butadiene	< 0.100		ppbv	0.100						
Bromomethane	< 0.100		ppbv	0.100						
Chloroethane	< 0.100		ppbv	0.100						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.100		ppbv	0.100						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.100		ppbv	0.100						
1,1-Dichloroethene	< 0.100		ppbv	0.100						
Methylene chloride	**0.200**	B, O01	ppbv	0.100						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.100		ppbv	0.100						
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.100		ppbv	0.100						
1,1-Dichloroethane	< 0.100		ppbv	0.100						
Methyl tert-butyl ether	< 0.100		ppbv	0.100						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.100		ppbv	0.100						
cis-1,2-Dichloroethene	< 0.100		ppbv	0.100						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.100		ppbv	0.100						
Chloroform	< 0.100		ppbv	0.100						
Tetrahydrofuran	< 0.100		ppbv	0.100						
1,2-Dichloroethane	< 0.100		ppbv	0.100						
1,1,1-Trichloroethane	< 0.100		ppbv	0.100						
Benzene	< 0.100		ppbv	0.100						
Carbon tetrachloride	< 0.100		ppbv	0.100						
Cyclohexane	< 0.100		ppbv	0.100						
1,2-Dichloropropane	< 0.100		ppbv	0.100						
Bromodichloromethane	< 0.100		ppbv	0.100						
Trichloroethene	< 0.100		ppbv	0.100						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.100		ppbv	0.100						
4-Methyl-2-pentanone (MIBK)	< 0.100		ppbv	0.100						
cis-1,3-Dichloropropene	< 0.100		ppbv	0.100						
trans-1,3-Dichloropropene	< 0.100		ppbv	0.100						
1,1,2-Trichloroethane	< 0.100		ppbv	0.100						
Toluene	< 0.100		ppbv	0.100						
2-Hexanone (MBK)	< 0.100		ppbv	0.100						
Dibromochloromethane	< 0.100		ppbv	0.100						
1,2-Dibromoethane (EDB)	< 0.100		ppbv	0.100						
Tetrachloroethene	< 0.100		ppbv	0.100						
Chlorobenzene	< 0.100		ppbv	0.100						
1,1,1,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Ethylbenzene	< 0.100		ppbv	0.100						
m,p-Xylene	< 0.200		ppbv	0.200						
Bromoform	< 0.100		ppbv	0.100						
Styrene	< 0.100		ppbv	0.100						
o-Xylene	< 0.100		ppbv	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516468 - General Air Prep										
Blank (1516468-BLK1)					Prepared & Analyzed: 27-Aug-15					
1,1,2,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Isopropylbenzene	< 0.100		ppbv	0.100						
1,3,5-Trimethylbenzene	< 0.100		ppbv	0.100						
4-Ethyltoluene	< 0.100		ppbv	0.100						
1,2,4-Trimethylbenzene	< 0.100		ppbv	0.100						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.100		ppbv	0.100						
Benzyl chloride	< 0.100		ppbv	0.100						
1,4-Dichlorobenzene	< 0.100		ppbv	0.100						
sec-Butylbenzene	< 0.100		ppbv	0.100						
4-Isopropyltoluene	< 0.100		ppbv	0.100						
1,2-Dichlorobenzene	< 0.100		ppbv	0.100						
n-Butylbenzene	< 0.100		ppbv	0.100						
1,2,4-Trichlorobenzene	< 0.100		ppbv	0.100						
Hexachlorobutadiene	< 0.100		ppbv	0.100						
Surrogate: 4-Bromofluorobenzene	*10.2*		ppbv		*10.0*		*102*	*70-130*		
LCS (1516468-BS1)					Prepared & Analyzed: 27-Aug-15					
Propene	**1.82**		ppbv		2.00		91	70-130		
Dichlorodifluoromethane (Freon12)	**1.67**		ppbv		2.00		84	70-130		
Chloromethane	**1.82**		ppbv		2.00		91	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**2.00**		ppbv		2.00		100	70-130		
Vinyl chloride	**1.90**		ppbv		2.00		95	70-130		
1,3-Butadiene	**1.90**		ppbv		2.00		95	70-130		
Bromomethane	**1.86**		ppbv		2.00		93	70-130		
Chloroethane	**1.89**		ppbv		2.00		94	70-130		
Acetone	**1.79**		ppbv		2.00		90	70-130		
Trichlorofluoromethane (Freon 11)	**1.89**		ppbv		2.00		94	70-130		
Ethanol	**1.90**		ppbv		2.00		95	70-130		
Acrylonitrile	**1.82**		ppbv		2.00		91	50-150		
1,1-Dichloroethene	**1.68**		ppbv		2.00		84	70-130		
Methylene chloride	**1.75**	B	ppbv		2.00		88	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**1.73**		ppbv		2.00		86	70-130		
Carbon disulfide	**1.60**		ppbv		2.00		80	70-130		
trans-1,2-Dichloroethene	**1.74**		ppbv		2.00		87	70-130		
1,1-Dichloroethane	**1.68**		ppbv		2.00		84	70-130		
Methyl tert-butyl ether	**1.77**		ppbv		2.00		88	70-130		
Isopropyl alcohol	**1.77**		ppbv		2.00		88	70-130		
2-Butanone (MEK)	**1.81**		ppbv		2.00		90	70-130		
cis-1,2-Dichloroethene	**1.74**		ppbv		2.00		87	70-130		
Hexane	**2.00**		ppbv		2.00		100	70-130		
Ethyl acetate	**1.68**		ppbv		2.00		84	70-130		
Chloroform	**1.67**		ppbv		2.00		84	70-130		
Tetrahydrofuran	**1.72**		ppbv		2.00		86	70-130		
1,2-Dichloroethane	**1.67**		ppbv		2.00		84	70-130		
1,1,1-Trichloroethane	**1.70**		ppbv		2.00		85	70-130		
Benzene	**1.74**		ppbv		2.00		87	70-130		
Carbon tetrachloride	**1.69**		ppbv		2.00		84	70-130		
Cyclohexane	**1.74**		ppbv		2.00		87	70-130		
1,2-Dichloropropane	**1.78**		ppbv		2.00		89	70-130		
Bromodichloromethane	**1.82**		ppbv		2.00		91	70-130		
Trichloroethene	**1.80**		ppbv		2.00		90	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516468 - General Air Prep										
LCS (1516468-BS1)					Prepared & Analyzed: 27-Aug-15					
1,4-Dioxane	**2.21**		ppbv		2.00		110	50-150		
n-Heptane	**1.75**		ppbv		2.00		88	70-130		
4-Methyl-2-pentanone (MIBK)	**2.00**		ppbv		2.00		100	70-130		
cis-1,3-Dichloropropene	**1.91**		ppbv		2.00		96	70-130		
trans-1,3-Dichloropropene	**1.82**		ppbv		2.00		91	70-130		
1,1,2-Trichloroethane	**1.83**		ppbv		2.00		92	70-130		
Toluene	**1.85**		ppbv		2.00		92	70-130		
2-Hexanone (MBK)	**2.14**		ppbv		2.00		107	70-130		
Dibromochloromethane	**1.87**		ppbv		2.00		94	70-130		
1,2-Dibromoethane (EDB)	**1.79**		ppbv		2.00		90	70-130		
Tetrachloroethene	**1.79**		ppbv		2.00		90	70-130		
Chlorobenzene	**2.02**		ppbv		2.00		101	70-130		
1,1,1,2-Tetrachloroethane	**2.11**		ppbv		2.00		106	50-150		
Ethylbenzene	**1.99**		ppbv		2.00		100	70-130		
m,p-Xylene	**4.14**		ppbv		4.00		104	70-130		
Bromoform	**1.84**		ppbv		2.00		92	70-130		
Styrene	**2.03**		ppbv		2.00		102	70-130		
o-Xylene	**2.04**		ppbv		2.00		102	70-130		
1,1,2,2-Tetrachloroethane	**1.86**		ppbv		2.00		93	70-130		
Isopropylbenzene	**1.89**		ppbv		2.00		94	50-150		
1,3,5-Trimethylbenzene	**1.98**		ppbv		2.00		99	70-130		
4-Ethyltoluene	**1.98**		ppbv		2.00		99	70-130		
1,2,4-Trimethylbenzene	**1.96**		ppbv		2.00		98	70-130		
Naphthalene	**1.44**		ppbv		2.00		72	50-150		
1,3-Dichlorobenzene	**1.80**		ppbv		2.00		90	70-130		
Benzyl chloride	**1.53**		ppbv		2.00		76	70-130		
1,4-Dichlorobenzene	**1.84**		ppbv		2.00		92	70-130		
sec-Butylbenzene	**1.79**		ppbv		2.00		90	50-150		
4-Isopropyltoluene	**1.81**		ppbv		2.00		90	50-150		
1,2-Dichlorobenzene	**1.81**		ppbv		2.00		90	70-130		
n-Butylbenzene	**1.73**		ppbv		2.00		86	50-150		
1,2,4-Trichlorobenzene	**1.75**		ppbv		2.00		88	70-130		
Hexachlorobutadiene	**1.47**		ppbv		2.00		74	70-130		
Surrogate: 4-Bromofluorobenzene	*11.0*		ppbv		*10.0*		*110*	*70-130*		
Batch 1516588 - General Air Prep										
Blank (1516588-BLK1)					Prepared & Analyzed: 28-Aug-15					
Propene	< 0.100		ppbv	0.100						
Dichlorodifluoromethane (Freon12)	< 0.100		ppbv	0.100						
Chloromethane	< 0.100		ppbv	0.100						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100		ppbv	0.100						
Vinyl chloride	< 0.100		ppbv	0.100						
1,3-Butadiene	< 0.100		ppbv	0.100						
Bromomethane	< 0.100		ppbv	0.100						
Chloroethane	< 0.100		ppbv	0.100						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.100		ppbv	0.100						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.100		ppbv	0.100						
1,1-Dichloroethene	< 0.100		ppbv	0.100						
Methylene chloride	**0.230**	B, O01	ppbv	0.100						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.100		ppbv	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516588 - General Air Prep										
Blank (1516588-BLK1)					Prepared & Analyzed: 28-Aug-15					
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.100		ppbv	0.100						
1,1-Dichloroethane	< 0.100		ppbv	0.100						
Methyl tert-butyl ether	< 0.100		ppbv	0.100						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.100		ppbv	0.100						
cis-1,2-Dichloroethene	< 0.100		ppbv	0.100						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.100		ppbv	0.100						
Chloroform	< 0.100		ppbv	0.100						
Tetrahydrofuran	< 0.100		ppbv	0.100						
1,2-Dichloroethane	< 0.100		ppbv	0.100						
1,1,1-Trichloroethane	< 0.100		ppbv	0.100						
Benzene	< 0.100		ppbv	0.100						
Carbon tetrachloride	< 0.100		ppbv	0.100						
Cyclohexane	< 0.100		ppbv	0.100						
1,2-Dichloropropane	< 0.100		ppbv	0.100						
Bromodichloromethane	< 0.100		ppbv	0.100						
Trichloroethene	< 0.100		ppbv	0.100						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.100		ppbv	0.100						
4-Methyl-2-pentanone (MIBK)	< 0.100		ppbv	0.100						
cis-1,3-Dichloropropene	< 0.100		ppbv	0.100						
trans-1,3-Dichloropropene	< 0.100		ppbv	0.100						
1,1,2-Trichloroethane	< 0.100		ppbv	0.100						
Toluene	< 0.100		ppbv	0.100						
2-Hexanone (MBK)	< 0.100		ppbv	0.100						
Dibromochloromethane	< 0.100		ppbv	0.100						
1,2-Dibromoethane (EDB)	< 0.100		ppbv	0.100						
Tetrachloroethene	< 0.100		ppbv	0.100						
Chlorobenzene	< 0.100		ppbv	0.100						
1,1,1,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Ethylbenzene	< 0.100		ppbv	0.100						
m,p-Xylene	< 0.200		ppbv	0.200						
Bromoform	< 0.100		ppbv	0.100						
Styrene	< 0.100		ppbv	0.100						
o-Xylene	< 0.100		ppbv	0.100						
1,1,2,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Isopropylbenzene	< 0.100		ppbv	0.100						
1,3,5-Trimethylbenzene	< 0.100		ppbv	0.100						
4-Ethyltoluene	< 0.100		ppbv	0.100						
1,2,4-Trimethylbenzene	< 0.100		ppbv	0.100						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.100		ppbv	0.100						
Benzyl chloride	< 0.100		ppbv	0.100						
1,4-Dichlorobenzene	< 0.100		ppbv	0.100						
sec-Butylbenzene	< 0.100		ppbv	0.100						
4-Isopropyltoluene	< 0.100		ppbv	0.100						
1,2-Dichlorobenzene	< 0.100		ppbv	0.100						
n-Butylbenzene	< 0.100		ppbv	0.100						
1,2,4-Trichlorobenzene	< 0.100		ppbv	0.100						
Hexachlorobutadiene	< 0.100		ppbv	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516588 - General Air Prep										
Blank (1516588-BLK1)						Prepared & Analyzed: 28-Aug-15				
Surrogate: 4-Bromofluorobenzene	*10.0*		ppbv		*10.0*		*100*	*70-130*		
LCS (1516588-BS1)						Prepared & Analyzed: 28-Aug-15				
Propene	**1.74**		ppbv		2.00		87	70-130		
Dichlorodifluoromethane (Freon12)	**1.48**		ppbv		2.00		74	70-130		
Chloromethane	**1.93**		ppbv		2.00		96	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**1.81**		ppbv		2.00		90	70-130		
Vinyl chloride	**1.91**		ppbv		2.00		96	70-130		
1,3-Butadiene	**1.86**		ppbv		2.00		93	70-130		
Bromomethane	**2.20**		ppbv		2.00		110	70-130		
Chloroethane	**1.73**		ppbv		2.00		86	70-130		
Acetone	**1.77**		ppbv		2.00		88	70-130		
Trichlorofluoromethane (Freon 11)	**1.73**		ppbv		2.00		86	70-130		
Ethanol	**1.74**		ppbv		2.00		87	70-130		
Acrylonitrile	**1.78**		ppbv		2.00		89	50-150		
1,1-Dichloroethene	**1.74**		ppbv		2.00		87	70-130		
Methylene chloride	**1.77**	B	ppbv		2.00		88	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**1.72**		ppbv		2.00		86	70-130		
Carbon disulfide	**1.63**		ppbv		2.00		82	70-130		
trans-1,2-Dichloroethene	**1.82**		ppbv		2.00		91	70-130		
1,1-Dichloroethane	**1.66**		ppbv		2.00		83	70-130		
Methyl tert-butyl ether	**1.75**		ppbv		2.00		88	70-130		
Isopropyl alcohol	**1.71**		ppbv		2.00		86	70-130		
2-Butanone (MEK)	**1.83**		ppbv		2.00		92	70-130		
cis-1,2-Dichloroethene	**1.84**		ppbv		2.00		92	70-130		
Hexane	**1.95**		ppbv		2.00		98	70-130		
Ethyl acetate	**1.73**		ppbv		2.00		86	70-130		
Chloroform	**1.59**		ppbv		2.00		80	70-130		
Tetrahydrofuran	**1.82**		ppbv		2.00		91	70-130		
1,2-Dichloroethane	**1.50**		ppbv		2.00		75	70-130		
1,1,1-Trichloroethane	**1.58**		ppbv		2.00		79	70-130		
Benzene	**1.81**		ppbv		2.00		90	70-130		
Carbon tetrachloride	**1.56**		ppbv		2.00		78	70-130		
Cyclohexane	**1.80**		ppbv		2.00		90	70-130		
1,2-Dichloropropane	**1.91**		ppbv		2.00		96	70-130		
Bromodichloromethane	**1.82**		ppbv		2.00		91	70-130		
Trichloroethene	**1.85**		ppbv		2.00		92	70-130		
1,4-Dioxane	**2.30**		ppbv		2.00		115	50-150		
n-Heptane	**1.97**		ppbv		2.00		98	70-130		
4-Methyl-2-pentanone (MIBK)	**2.01**		ppbv		2.00		100	70-130		
cis-1,3-Dichloropropene	**2.08**		ppbv		2.00		104	70-130		
trans-1,3-Dichloropropene	**1.91**		ppbv		2.00		96	70-130		
1,1,2-Trichloroethane	**1.90**		ppbv		2.00		95	70-130		
Toluene	**2.04**		ppbv		2.00		102	70-130		
2-Hexanone (MBK)	**2.25**		ppbv		2.00		112	70-130		
Dibromochloromethane	**1.92**		ppbv		2.00		96	70-130		
1,2-Dibromoethane (EDB)	**1.93**		ppbv		2.00		96	70-130		
Tetrachloroethene	**2.01**		ppbv		2.00		100	70-130		
Chlorobenzene	**2.09**		ppbv		2.00		104	70-130		
1,1,1,2-Tetrachloroethane	**2.04**		ppbv		2.00		102	50-150		
Ethylbenzene	**2.04**		ppbv		2.00		102	70-130		
m,p-Xylene	**4.28**		ppbv		4.00		107	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516588 - General Air Prep										
LCS (1516588-BS1)					Prepared & Analyzed: 28-Aug-15					
Bromoform	**1.88**		ppbv		2.00		94	70-130		
Styrene	**2.13**		ppbv		2.00		106	70-130		
o-Xylene	**2.08**		ppbv		2.00		104	70-130		
1,1,2,2-Tetrachloroethane	**1.87**		ppbv		2.00		94	70-130		
Isopropylbenzene	**1.86**		ppbv		2.00		93	50-150		
1,3,5-Trimethylbenzene	**2.07**		ppbv		2.00		104	70-130		
4-Ethyltoluene	**2.08**		ppbv		2.00		104	70-130		
1,2,4-Trimethylbenzene	**2.05**		ppbv		2.00		102	70-130		
Naphthalene	**1.65**		ppbv		2.00		82	50-150		
1,3-Dichlorobenzene	**1.92**		ppbv		2.00		96	70-130		
Benzyl chloride	**1.72**		ppbv		2.00		86	70-130		
1,4-Dichlorobenzene	**1.89**		ppbv		2.00		94	70-130		
sec-Butylbenzene	**1.80**		ppbv		2.00		90	50-150		
4-Isopropyltoluene	**1.80**		ppbv		2.00		90	50-150		
1,2-Dichlorobenzene	**1.89**		ppbv		2.00		94	70-130		
n-Butylbenzene	**1.71**		ppbv		2.00		86	50-150		
1,2,4-Trichlorobenzene	**1.96**		ppbv		2.00		98	70-130		
Hexachlorobutadiene	**1.64**		ppbv		2.00		82	70-130		
Surrogate: 4-Bromofluorobenzene	*9.77*		ppbv		*10.0*		*98*	*70-130*		
Batch 1516600 - General Air Prep										
Blank (1516600-BLK1)					Prepared & Analyzed: 29-Aug-15					
Propene	< 0.500		ppbv	0.500						
Dichlorodifluoromethane (Freon12)	< 0.500		ppbv	0.500						
Chloromethane	< 0.500		ppbv	0.500						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.500		ppbv	0.500						
Vinyl chloride	< 0.500		ppbv	0.500						
1,3-Butadiene	< 0.500		ppbv	0.500						
Bromomethane	< 0.500		ppbv	0.500						
Chloroethane	< 0.500		ppbv	0.500						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.500		ppbv	0.500						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.500		ppbv	0.500						
1,1-Dichloroethene	< 0.500		ppbv	0.500						
Methylene chloride	< 0.500		ppbv	0.500						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.500		ppbv	0.500						
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.500		ppbv	0.500						
1,1-Dichloroethane	< 0.500		ppbv	0.500						
Methyl tert-butyl ether	< 0.500		ppbv	0.500						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.500		ppbv	0.500						
cis-1,2-Dichloroethene	< 0.500		ppbv	0.500						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.500		ppbv	0.500						
Chloroform	< 0.500		ppbv	0.500						
Tetrahydrofuran	< 0.500		ppbv	0.500						
1,2-Dichloroethane	< 0.500		ppbv	0.500						
1,1,1-Trichloroethane	< 0.500		ppbv	0.500						
Benzene	< 0.500		ppbv	0.500						
Carbon tetrachloride	< 0.500		ppbv	0.500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516600 - General Air Prep										
Blank (1516600-BLK1)					Prepared & Analyzed: 29-Aug-15					
Cyclohexane	< 0.500		ppbv	0.500						
1,2-Dichloropropane	< 0.500		ppbv	0.500						
Bromodichloromethane	< 0.500		ppbv	0.500						
Trichloroethene	< 0.500		ppbv	0.500						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.500		ppbv	0.500						
4-Methyl-2-pentanone (MIBK)	< 0.500		ppbv	0.500						
cis-1,3-Dichloropropene	< 0.500		ppbv	0.500						
trans-1,3-Dichloropropene	< 0.500		ppbv	0.500						
1,1,2-Trichloroethane	< 0.500		ppbv	0.500						
Toluene	< 0.500		ppbv	0.500						
2-Hexanone (MBK)	< 0.500		ppbv	0.500						
Dibromochloromethane	< 0.500		ppbv	0.500						
1,2-Dibromoethane (EDB)	< 0.500		ppbv	0.500						
Tetrachloroethene	< 0.500		ppbv	0.500						
Chlorobenzene	< 0.500		ppbv	0.500						
1,1,1,2-Tetrachloroethane	< 0.500		ppbv	0.500						
Ethylbenzene	< 0.500		ppbv	0.500						
m,p-Xylene	< 1.00		ppbv	1.00						
Bromoform	< 0.500		ppbv	0.500						
Styrene	< 0.500		ppbv	0.500						
o-Xylene	< 0.500		ppbv	0.500						
1,1,2,2-Tetrachloroethane	< 0.500		ppbv	0.500						
Isopropylbenzene	< 0.500		ppbv	0.500						
1,3,5-Trimethylbenzene	< 0.500		ppbv	0.500						
4-Ethyltoluene	< 0.500		ppbv	0.500						
1,2,4-Trimethylbenzene	< 0.500		ppbv	0.500						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.500		ppbv	0.500						
Benzyl chloride	< 0.500		ppbv	0.500						
1,4-Dichlorobenzene	< 0.500		ppbv	0.500						
sec-Butylbenzene	< 0.500		ppbv	0.500						
4-Isopropyltoluene	< 0.500		ppbv	0.500						
1,2-Dichlorobenzene	< 0.500		ppbv	0.500						
n-Butylbenzene	< 0.500		ppbv	0.500						
1,2,4-Trichlorobenzene	< 0.500		ppbv	0.500						
Hexachlorobutadiene	< 0.500		ppbv	0.500						
Surrogate: 4-Bromofluorobenzene	*8.39*		ppbv		*10.0*		*84*	*70-130*		
LCS (1516600-BS1)					Prepared & Analyzed: 29-Aug-15					
Propene	**10.7**		ppbv		10.0		107	70-130		
Dichlorodifluoromethane (Freon12)	**9.74**		ppbv		10.0		97	70-130		
Chloromethane	**8.85**		ppbv		10.0		88	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**10.1**		ppbv		10.0		101	70-130		
Vinyl chloride	**9.31**		ppbv		10.0		93	70-130		
1,3-Butadiene	**10.1**		ppbv		10.0		101	70-130		
Bromomethane	**9.28**		ppbv		10.0		93	70-130		
Chloroethane	**9.42**		ppbv		10.0		94	70-130		
Acetone	**11.5**		ppbv		10.0		115	70-130		
Trichlorofluoromethane (Freon 11)	**10.2**		ppbv		10.0		102	70-130		
Ethanol	**11.2**		ppbv		10.0		112	70-130		
Acrylonitrile	**10.5**		ppbv		10.0		105	50-150		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516600 - General Air Prep										
LCS (1516600-BS1)					Prepared & Analyzed: 29-Aug-15					
1,1-Dichloroethene	**10.5**		ppbv		10.0		105	70-130		
Methylene chloride	**10.6**		ppbv		10.0		106	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**8.97**		ppbv		10.0		90	70-130		
Carbon disulfide	**9.57**		ppbv		10.0		96	70-130		
trans-1,2-Dichloroethene	**9.81**		ppbv		10.0		98	70-130		
1,1-Dichloroethane	**9.85**		ppbv		10.0		98	70-130		
Methyl tert-butyl ether	**10.5**		ppbv		10.0		105	70-130		
Isopropyl alcohol	**11.9**		ppbv		10.0		119	70-130		
2-Butanone (MEK)	**10.6**		ppbv		10.0		106	70-130		
cis-1,2-Dichloroethene	**10.2**		ppbv		10.0		102	70-130		
Hexane	**10.6**		ppbv		10.0		106	70-130		
Ethyl acetate	**10.8**		ppbv		10.0		108	70-130		
Chloroform	**9.79**		ppbv		10.0		98	70-130		
Tetrahydrofuran	**10.9**		ppbv		10.0		109	70-130		
1,2-Dichloroethane	**10.2**		ppbv		10.0		102	70-130		
1,1,1-Trichloroethane	**9.78**		ppbv		10.0		98	70-130		
Benzene	**10.0**		ppbv		10.0		100	70-130		
Carbon tetrachloride	**9.82**		ppbv		10.0		98	70-130		
Cyclohexane	**11.1**		ppbv		10.0		111	70-130		
1,2-Dichloropropane	**9.89**		ppbv		10.0		99	70-130		
Bromodichloromethane	**9.91**		ppbv		10.0		99	70-130		
Trichloroethene	**9.92**		ppbv		10.0		99	70-130		
1,4-Dioxane	**10.6**		ppbv		10.0		106	50-150		
n-Heptane	**10.9**		ppbv		10.0		109	70-130		
4-Methyl-2-pentanone (MIBK)	**11.7**		ppbv		10.0		117	70-130		
cis-1,3-Dichloropropene	**10.4**		ppbv		10.0		104	70-130		
trans-1,3-Dichloropropene	**10.7**		ppbv		10.0		107	70-130		
1,1,2-Trichloroethane	**9.74**		ppbv		10.0		97	70-130		
Toluene	**10.7**		ppbv		10.0		107	70-130		
2-Hexanone (MBK)	**10.3**		ppbv		10.0		103	70-130		
Dibromochloromethane	**9.97**		ppbv		10.0		100	70-130		
1,2-Dibromoethane (EDB)	**9.90**		ppbv		10.0		99	70-130		
Tetrachloroethene	**9.71**		ppbv		10.0		97	70-130		
Chlorobenzene	**8.92**		ppbv		10.0		89	70-130		
1,1,1,2-Tetrachloroethane	**8.93**		ppbv		10.0		89	50-150		
Ethylbenzene	**10.5**		ppbv		10.0		105	70-130		
m,p-Xylene	**20.2**		ppbv		20.0		101	70-130		
Bromoform	**9.38**		ppbv		10.0		94	70-130		
Styrene	**9.27**		ppbv		10.0		93	70-130		
o-Xylene	**10.4**		ppbv		10.0		104	70-130		
1,1,2,2-Tetrachloroethane	**9.30**		ppbv		10.0		93	70-130		
Isopropylbenzene	**10.5**		ppbv		10.0		105	50-150		
1,3,5-Trimethylbenzene	**10.6**		ppbv		10.0		106	70-130		
4-Ethyltoluene	**9.55**		ppbv		10.0		96	70-130		
1,2,4-Trimethylbenzene	**9.44**		ppbv		10.0		94	70-130		
Naphthalene	**9.87**		ppbv		10.0		99	50-150		
1,3-Dichlorobenzene	**9.36**		ppbv		10.0		94	70-130		
Benzyl chloride	**10.0**		ppbv		10.0		100	70-130		
1,4-Dichlorobenzene	**9.59**		ppbv		10.0		96	70-130		
sec-Butylbenzene	**10.2**		ppbv		10.0		102	50-150		
4-Isopropyltoluene	**9.33**		ppbv		10.0		93	50-150		
1,2-Dichlorobenzene	**9.61**		ppbv		10.0		96	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516600 - General Air Prep										
LCS (1516600-BS1)					Prepared & Analyzed: 29-Aug-15					
n-Butylbenzene	**9.51**		ppbv		10.0		95	50-150		
1,2,4-Trichlorobenzene	**9.26**		ppbv		10.0		93	70-130		
Hexachlorobutadiene	**8.97**		ppbv		10.0		90	70-130		
Surrogate: 4-Bromofluorobenzene	*9.95*		ppbv		*10.0*		*100*	*70-130*		
Duplicate (1516600-DUP1)			**Source: SC11570-01**		Prepared & Analyzed: 29-Aug-15					
Propene	< 5.00	D	ppbv	5.00		BRL				25
Dichlorodifluoromethane (Freon12)	< 5.00	D	ppbv	5.00		BRL				25
Chloromethane	< 5.00	D	ppbv	5.00		BRL				25
1,2-Dichlorotetrafluoroethane (Freon 114)	< 5.00	D	ppbv	5.00		BRL				25
Vinyl chloride	< 5.00	D	ppbv	5.00		BRL				25
1,3-Butadiene	< 5.00	D	ppbv	5.00		BRL				25
Bromomethane	< 5.00	D	ppbv	5.00		BRL				25
Chloroethane	< 5.00	D	ppbv	5.00		BRL				25
Acetone	**3.80**	J,D	ppbv	5.00		4.00			5	25
Trichlorofluoromethane (Freon 11)	< 5.00	D	ppbv	5.00		BRL				25
Ethanol	**226**	D	ppbv	5.00		224			0.8	25
Acrylonitrile	< 5.00	D	ppbv	5.00		BRL				25
1,1-Dichloroethene	< 5.00	D	ppbv	5.00		BRL				25
Methylene chloride	< 5.00	D	ppbv	5.00		BRL				25
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.00	D	ppbv	5.00		BRL				25
Carbon disulfide	< 5.00	D	ppbv	5.00		BRL				25
trans-1,2-Dichloroethene	< 5.00	D	ppbv	5.00		BRL				25
1,1-Dichloroethane	< 5.00	D	ppbv	5.00		BRL				25
Methyl tert-butyl ether	< 5.00	D	ppbv	5.00		BRL				25
Isopropyl alcohol	< 5.00	D	ppbv	5.00		BRL				25
2-Butanone (MEK)	< 5.00	D	ppbv	5.00		BRL				25
cis-1,2-Dichloroethene	< 5.00	D	ppbv	5.00		BRL				25
Hexane	< 5.00	D	ppbv	5.00		BRL				25
Ethyl acetate	**9.30**	D	ppbv	5.00		8.90			4	25
Chloroform	< 5.00	D	ppbv	5.00		BRL				25
Tetrahydrofuran	< 5.00	D	ppbv	5.00		BRL				25
1,2-Dichloroethane	< 5.00	D	ppbv	5.00		BRL				25
1,1,1-Trichloroethane	< 5.00	D	ppbv	5.00		BRL				25
Benzene	< 5.00	D	ppbv	5.00		BRL				25
Carbon tetrachloride	< 5.00	D	ppbv	5.00		BRL				25
Cyclohexane	< 5.00	D	ppbv	5.00		BRL				25
1,2-Dichloropropane	< 5.00	D	ppbv	5.00		BRL				25
Bromodichloromethane	< 5.00	D	ppbv	5.00		BRL				25
Trichloroethene	< 5.00	D	ppbv	5.00		BRL				25
1,4-Dioxane	< 5.00	D	ppbv	5.00		BRL				25
n-Heptane	< 5.00	D	ppbv	5.00		BRL				25
4-Methyl-2-pentanone (MIBK)	< 5.00	D	ppbv	5.00		BRL				25
cis-1,3-Dichloropropene	< 5.00	D	ppbv	5.00		BRL				25
trans-1,3-Dichloropropene	< 5.00	D	ppbv	5.00		BRL				25
1,1,2-Trichloroethane	< 5.00	D	ppbv	5.00		BRL				25
Toluene	< 5.00	D	ppbv	5.00		BRL				25
2-Hexanone (MBK)	< 5.00	D	ppbv	5.00		BRL				25
Dibromochloromethane	< 5.00	D	ppbv	5.00		BRL				25
1,2-Dibromoethane (EDB)	< 5.00	D	ppbv	5.00		BRL				25
Tetrachloroethene	< 5.00	D	ppbv	5.00		BRL				25
Chlorobenzene	< 5.00	D	ppbv	5.00		BRL				25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516600 - General Air Prep										
Duplicate (1516600-DUP1)			**Source: SC11570-01**		Prepared & Analyzed: 29-Aug-15					
1,1,1,2-Tetrachloroethane	< 5.00	D	ppbv	5.00		BRL				25
Ethylbenzene	< 5.00	D	ppbv	5.00		BRL				25
m,p-Xylene	< 10.0	D	ppbv	10.0		BRL				25
Bromoform	< 5.00	D	ppbv	5.00		BRL				25
Styrene	< 5.00	D	ppbv	5.00		BRL				25
o-Xylene	< 5.00	D	ppbv	5.00		BRL				25
1,1,2,2-Tetrachloroethane	< 5.00	D	ppbv	5.00		BRL				25
Isopropylbenzene	< 5.00	D	ppbv	5.00		BRL				25
1,3,5-Trimethylbenzene	< 5.00	D	ppbv	5.00		BRL				25
4-Ethyltoluene	< 5.00	D	ppbv	5.00		BRL				25
1,2,4-Trimethylbenzene	< 5.00	D	ppbv	5.00		BRL				25
Naphthalene	< 5.00	D	ppbv	5.00		BRL				25
1,3-Dichlorobenzene	< 5.00	D	ppbv	5.00		BRL				25
Benzyl chloride	< 5.00	D	ppbv	5.00		BRL				25
1,4-Dichlorobenzene	< 5.00	D	ppbv	5.00		BRL				25
sec-Butylbenzene	< 5.00	D	ppbv	5.00		BRL				25
4-Isopropyltoluene	< 5.00	D	ppbv	5.00		BRL				25
1,2-Dichlorobenzene	< 5.00	D	ppbv	5.00		BRL				25
n-Butylbenzene	< 5.00	D	ppbv	5.00		BRL				25
1,2,4-Trichlorobenzene	< 5.00	D	ppbv	5.00		BRL				25
Hexachlorobutadiene	< 5.00	D	ppbv	5.00		BRL				25
Surrogate: 4-Bromofluorobenzene	*8.28*		ppbv		*10.0*		*83*	*70-130*		

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 6/24/2015

Canister ID: 0258 **Analyst's Initials:** NAA

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.5	Ethanol	<0.5
Acrylonitrile	<0.1	4-Isopropyl Toluene	<0.5
Benzene	<0.1	Ethyl acetate	<0.1
Benzyl chloride	<0.1	Ethylbenzene	<0.1
Bromodichloromethane	<0.1	4-Ethyltoluene	<0.1
Bromoform	<0.1	n-Heptane	<0.1
Bromomethane	<0.1	Hexachlorobutadiene	<0.1
1,3-Butadiene	<0.1	Hexane	<0.1
2-Butanone (MEK)	<0.1	2-Hexanone (MBK)	<0.1
Carbon disulfide	<0.5	Isopropyl alcohol	<0.5
Carbon tetrachloride	<0.1	4-Methyl-2-pentanone (MIBK)	<0.1
Chlorobenzene	<0.1	Methyl tert-butyl ether	<0.1
Chloroethane	<0.1	Methylene chloride	<0.1
1,4-Dioxane	<0.1	Naphthalene	<0.5
n-Butylbenzene	<0.1	1,1,1,2-Tetrachlorethane	<0.1
Chloroform	<0.1	Propene	<0.1
Chloromethane	<0.1	Styrene	<0.1
Cyclohexane	<0.1	1,1,2,2-Tetrachloroethane	<0.1
Dibromochloromethane	<0.1	Tetrachloroethene	<0.1
1,2-Dibromoethane (EDB)	<0.1	Tetrahydrofuran	<0.1
1,2-Dichlorobenzene	<0.1	Toluene	<0.1
1,3-Dichlorobenzene	<0.1	1,2,4-Trichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1	1,1,1-Trichloroethane	<0.1
Dichlorodifluoromethane (Freon12)	<0.1	1,1,2-Trichloroethane	<0.1
1,1-Dichloroethane	<0.1	Trichloroethene	<0.1
1,2-Dichloroethane	<0.1	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.1
1,1-Dichloroethene	<0.1	Trichlorofluoromethane (Freon 11)	<0.1
cis-1,2-Dichloroethene	<0.1	1,2,4-Trimethylbenzene	<0.1
trans-1,2-Dichloroethene	<0.1	1,3,5-Trimethylbenzene	<0.1
1,2-Dichloropropane	<0.1	Vinyl chloride	<0.1
cis-1,3-Dichloropropene	<0.1	m,p-Xylene	<0.1
trans-1,3-Dichloropropene	<0.1	o-Xylene	<0.1
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.1	sec-Butylbenzene	<0.1
Isopropylbenzene	<0.1		

This certification applies to the following sampling devices:

0258

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 7/30/2015

Canister ID: 1657 **Analyst's Initials:** NAA

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.5	Ethanol	<0.5
Acrylonitrile	<0.1	4-Isopropyl Toluene	<0.5
Benzene	<0.1	Ethyl acetate	<0.1
Benzyl chloride	<0.1	Ethylbenzene	<0.1
Bromodichloromethane	<0.1	4-Ethyltoluene	<0.1
Bromoform	<0.1	n-Heptane	<0.1
Bromomethane	<0.1	Hexachlorobutadiene	<0.1
1,3-Butadiene	<0.1	Hexane	<0.1
2-Butanone (MEK)	<0.1	2-Hexanone (MBK)	<0.1
Carbon disulfide	<0.5	Isopropyl alcohol	<0.5
Carbon tetrachloride	<0.1	4-Methyl-2-pentanone (MIBK)	<0.1
Chlorobenzene	<0.1	Methyl tert-butyl ether	<0.1
Chloroethane	<0.1	Methylene chloride	<0.1
1,4-Dioxane	<0.1	Naphthalene	<0.5
n-Butylbenzene	<0.1	1,1,1,2-Tetrachlorethane	<0.1
Chloroform	<0.1	Propene	<0.1
Chloromethane	<0.1	Styrene	<0.1
Cyclohexane	<0.1	1,1,2,2-Tetrachloroethane	<0.1
Dibromochloromethane	<0.1	Tetrachloroethene	<0.1
1,2-Dibromoethane (EDB)	<0.1	Tetrahydrofuran	<0.1
1,2-Dichlorobenzene	<0.1	Toluene	<0.1
1,3-Dichlorobenzene	<0.1	1,2,4-Trichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1	1,1,1-Trichloroethane	<0.1
Dichlorodifluoromethane (Freon12)	<0.1	1,1,2-Trichloroethane	<0.1
1,1-Dichloroethane	<0.1	Trichloroethene	<0.1
1,2-Dichloroethane	<0.1	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.1
1,1-Dichloroethene	<0.1	Trichlorofluoromethane (Freon 11)	<0.1
cis-1,2-Dichloroethene	<0.1	1,2,4-Trimethylbenzene	<0.1
trans-1,2-Dichloroethene	<0.1	1,3,5-Trimethylbenzene	<0.1
1,2-Dichloropropane	<0.1	Vinyl chloride	<0.1
cis-1,3-Dichloropropene	<0.1	m,p-Xylene	<0.1
trans-1,3-Dichloropropene	<0.1	o-Xylene	<0.1
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.1	sec-Butylbenzene	<0.1
Isopropylbenzene	<0.1		

This certification applies to the following sampling devices:

1657

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 7/22/2015

Canister ID: 5588 **Analyst's Initials:** BRF

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.5	Ethanol	<0.5
Acrylonitrile	<0.1	4-Isopropyl Toluene	<0.5
Benzene	<0.1	Ethyl acetate	<0.1
Benzyl chloride	<0.1	Ethylbenzene	<0.1
Bromodichloromethane	<0.1	4-Ethyltoluene	<0.1
Bromoform	<0.1	n-Heptane	<0.1
Bromomethane	<0.1	Hexachlorobutadiene	<0.1
1,3-Butadiene	<0.1	Hexane	<0.1
2-Butanone (MEK)	<0.1	2-Hexanone (MBK)	<0.1
Carbon disulfide	<0.5	Isopropyl alcohol	<0.5
Carbon tetrachloride	<0.1	4-Methyl-2-pentanone (MIBK)	<0.1
Chlorobenzene	<0.1	Methyl tert-butyl ether	<0.1
Chloroethane	<0.1	Methylene chloride	<0.1
1,4-Dioxane	<0.1	Naphthalene	<0.5
n-Butylbenzene	<0.1	1,1,1,2-Tetrachlorethane	<0.1
Chloroform	<0.1	Propene	<0.1
Chloromethane	<0.1	Styrene	<0.1
Cyclohexane	<0.1	1,1,2,2-Tetrachloroethane	<0.1
Dibromochloromethane	<0.1	Tetrachloroethene	<0.1
1,2-Dibromoethane (EDB)	<0.1	Tetrahydrofuran	<0.1
1,2-Dichlorobenzene	<0.1	Toluene	<0.1
1,3-Dichlorobenzene	<0.1	1,2,4-Trichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1	1,1,1-Trichloroethane	<0.1
Dichlorodifluoromethane (Freon12)	<0.1	1,1,2-Trichloroethane	<0.1
1,1-Dichloroethane	<0.1	Trichloroethene	<0.1
1,2-Dichloroethane	<0.1	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.1
1,1-Dichloroethene	<0.1	Trichlorofluoromethane (Freon 11)	<0.1
cis-1,2-Dichloroethene	<0.1	1,2,4-Trimethylbenzene	<0.1
trans-1,2-Dichloroethene	<0.1	1,3,5-Trimethylbenzene	<0.1
1,2-Dichloropropane	<0.1	Vinyl chloride	<0.1
cis-1,3-Dichloropropene	<0.1	m,p-Xylene	<0.1
trans-1,3-Dichloropropene	<0.1	o-Xylene	<0.1
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.1	sec-Butylbenzene	<0.1
Isopropylbenzene	<0.1		

This certification applies to the following sampling devices:

5588

Notes and Definitions

B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
O01	This compound is a common laboratory contaminant.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Rebecca Merz

SC11570 AA

SPECTRUM ANALYTICAL INC.
Featuring
HANIBAL TECHNOLOGY

Chain of Custody Record/Field Test Data Sheets for Air Analyses

Page 1 of 1

Special Handling:
☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____
All TATs subject to laboratory approval.
Min. 24-hour notification needed for rushes.

Report To: Erik Urch
1 Elm Street #3
Waterbury VT 05660
Tel #: 802 241 4131
Project Manager: Erik Urch

Invoice To: Erik Urch
1 Elm St #3
Waterbury VT 05660
Attn:
P.O. No.: 08-223948.00 RQN: Extreme

Project No.: 08-223948.00
Site Name: Poplawski
Location: Rutland State: VT
Sampler(s): Katrina Mattice

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Readout (ml/min)	Lab Id:	Sample Id:	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	TO-15	Indoor/Ambient Air	Soil Gas	Check box if canister is returned unused
LL 5888	6	-30	~~-30~~	~~0225~~ 0225	3.11	SC11570-01	IA-2Floor	8/19/15	1202	1209	-30	-2	83.2	77.5	X	X		
LL 1657	6	-30		~~2243~~ 2243	3.13	02	IA-Basement	8/19/15	1215	1219	-30	-4	79.4	78.6	X	X		
LL 0258	6	-30		2968	3.10	03	IA-1Floor	8/19/15	1207	1211	-30	-4.5	82.0	79.6	X	X		

Date of Request: 8/18/15
Requested by: Katrina Mattice
Company: FCS
Location: Waterbury VT
Date Needed: 8/19/15 Order #: 36536 Prepared by: NAA
Total # Canisters: 3
LL Canisters: 3
Flow Controllers: 3
Flow Rate/Setting: 24 hrs

QA/QC Reporting Level:
☐ Standard ☐ NY ASP A* ☐ TIER II* ☐ MA DEP CAM
☐ NO QC ☐ NY ASP B* ☐ TIER IV* ☐ CT DPH RCP
☐ DQA*
* additional charges may apply contact SA's QA Department for further info.

Client Use	Ambient Temperature (Fahrenheit)	Ambient Pressure (inches of Hg)
Start		
Stop		

Special Instructions/QC Requirements & Comments:
22.5 10/22.5 102
8/21/15

I attest that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition, based on visual observation, and agree to the terms and conditions as listed on the back of this document.
Signed: Date:
Printed:

Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.

Relinquished by:	Received by:	Date:	Time:
Katrina Mattice	C. Pattenaude	8-20-15	1600
C. Pattenaude	UPS	8-20-15	1700
UPS	[illegible]	8/21/15	1335

☐ EDD Format
☒ E-mail Results to eurch@ecsconsult.com

A 4711

Revised Feb 2014

Aug. 21. 2015 3:40PM No. 0263 P. 1/1

ED DIAZ
(5) 527-5939 7018
ENTECH INSTRUMENTS
2207 AGATE CT.
SIMI VALLEY CA 93065

50 LBS

1 OF 2

DWT: 24,24,18

SHIP TO:
WES BRYON
(413) 789-9018
SPECTRUM ANALYTICAL
11 ALMGREN DRIVE
AGAWAM MA 01001

MA 011 9-06

UPS GROUND
TRACKING #: 1Z 931 08E 03 4639 2910

BILLING: P/P

REF 1:156467

WS 17.0.31 Zebra ZP Ser 54.0A 07/2014

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DULCE LITCHFIELD
4137899018 101
SPECTRUM ANALYTICAL, INC.
830 SILVER ST
AGAWAM MA 01001

28 LBS

1 OF 1

FOLD HERE

SHIP TO:
KATRINA MATTICE
ECS
1 ELM ST.,SUITE #3
WATERBURY VT 05676-1802

VT 056 0-01

UPS NEXT DAY AIR

TRACKING #: 1Z 081 R7F 01 9687 3382

1

BILLING: P/P

Reference#1: #36536

UIS 17.5.27. WXPI 66.0A 07/2015

https://www.ups.com/uis/create?ActionOriginPair=default__PrintWindowPage&key=lab... 8/18/2015

AMY BETH CONNELL
8024344500
ECS WATERBURY
1 ELM STREET
WATERBURY VT 05676

20 LBS

1 OF 1

SHIP TO:
LAB
413 789 9018
SPECTRUM ANALYTICAL
11 ALMGREN DRIVE
AGAWAM MA 01001-3831

MA 011 9-06

UPS NEXT DAY AIR

TRACKING #: 1Z F31 7E5 01 9596 8926

1

BILLING: F/C BILL RECEIVER

Location Reference: 0008
Project Number: samples

CS 17.5.27. WNTINV50 66.0A 07/2015

TM

https://www.campusship.ups.com/cship/create?ActionOriginPair=default___PrintWindowPage&key=labelWindow&type=html&loc=en_US&instr=A&doc=ship... 1/1

SC11570 AA

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Chain of Custody Record/Field Test Data Sheets for Air Analyses

Page 1 of 1

Special Handling:
☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____
All TATs subject to laboratory approval.
Min. 24-hour notification needed for rushes.

Report To: Erik Urch
1 Elm Street #3
Waterbury VT 05660
Tel #: 802 241 4131
Project Manager: Erik Urch

Invoice To: Erik Urch
1 Elm St #3
Waterbury VT 05660
Attn:
P.O. No.: 08-223948.00 RQN: Extreme

Project No.: 08-223948.00
Site Name: Poplawski
Location: Rutland State: VT
Sampler(s): Katrina Mattice

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Readout (ml/min)	Lab ID:	Sample Id:	Sample Coords:	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Analysis: TO-15	Matrix: Indoor/Ambient Air	Matrix: Soil Gas	Check box if canister is returned unused
LL 5886	6	-30	-2	2625	3.11	SC11570-01	IA-2Floor	8/19/15	1202	1209	-30	-2	83.2	77.5	X	X		
LL 1657	6	-30	-2	2443	3.13	02	IA-Basement	8/19/15	1215	1219	-30	-4	79.4	78.6	X	X		
LL 0258	6	-30	-2	2968	3.10	03	IA-1Floor	8/19/15	1207	1211	-30	-4.5	82.0	79.6	X	X		

Date of Request: 8/18/15
Requested by: Katrina Mattice
Company: FCS
Location: Waterbury VT
Date Needed: 8/19/15 Order #: 24836
Total # Canisters: 3
LL Canisters: 3
Flow Controllers: 3
Flow Rate/Setting: 24 hrs
Prepared by: NAA

QA/QC Reporting Level:
☐ Standard ☐ NY ASP A* ☐ TIER II* ☐ MA DEP CAM
☐ NO QC ☐ NY ASP B* ☐ TIER IV* ☐ CT DPH RCP
☐ DQA*
* additional charges may apply contact SA's QA Department for further info.

Client Use	Ambient Temperature (Fahrenheit)	Ambient Pressure (Inches of Hg)
Start		
Stop		

Special Instructions/QC Requirements & Comments:
22.5 10 22.5 102
8/21/15

I attest that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition, based on visual observation, and agree to the terms and conditions as listed on the back of this document.
Signed: Date:
Printed:

Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.

Relinquished by:	Received by:	Date:	Time:
Katrina Mattice	C. Patt Conroy	8-20-15	1600
C. Patt Conroy	UPS	8-20-15	1700
UPS	[illegible]	8/21/15	1335

☐ EDD Format
☒ E-mail Results to: eurch@ecsconsult.com

19 Almgren Drive • Agawam, MA 01001 • 1-800-789-9115 • 413-789-9018 • FAX 413-789-4076 • www.spectrum-analytical.com

A 4711

(Revised Feb) 2014

Aug. 21. 2015 3:40PM No. 0263 P. 1/1

Report Date:
28-Aug-15 12:39

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Environmental Compliance Services
1 Elm St. Suite 3
Waterbury, VT 05676
Attn: Erik Urch

Project: VT DEC - 12 North St. - Rutland, VT
Project #: 08-223948.00

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC11693-01	Trip Blank	Deionized Water	24-Aug-15 00:00	26-Aug-15 10:30
SC11693-02	Sump 1	Ground Water	24-Aug-15 11:10	26-Aug-15 10:30
SC11693-03	Sump 2	Ground Water	24-Aug-15 11:18	26-Aug-15 10:30

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00098
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 20 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 4.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 8260C

Calibration:

1508007

Analyte quantified by quadratic equation type calibration.

1,3,5-Trimethylbenzene
Bromoform
Carbon tetrachloride
Dibromochloromethane
Naphthalene
sec-Butylbenzene
trans-1,3-Dichloropropene

This affected the following samples:

1516445-BLK1
1516445-BS1
1516445-BSD1
1516445-MS1
1516445-MSD1
S507322-ICV1
S507917-CCV1
Sump 1
Trip Blank

S507322-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,1,2-Trichlorotrifluoroethane (Freon 113) (68%)
Dichlorodifluoromethane (Freon12) (65%)
Trichlorofluoromethane (Freon 11) (76%)
Vinyl chloride (70%)

This affected the following samples:

1516445-BLK1
1516445-BS1
1516445-BSD1
1516445-MS1
1516445-MSD1
S507917-CCV1
Sump 1
Trip Blank

Spikes:

SW846 8260C

Spikes:

1516445-MS1 *Source: SC11693-02*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

4-Chlorotoluene
Acetone
Bromoform
Carbon disulfide
Chloromethane
m,p-Xylene
tert-Butylbenzene

1516445-MSD1 *Source: SC11693-02*

RPD out of acceptance range.

m,p-Xylene

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

4-Chlorotoluene
Acetone
Carbon disulfide
Chloromethane
m,p-Xylene

Samples:

S507917-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Ethyl tert-butyl ether (-25.9%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Tert-amyl methyl ether (-28.5%)
trans-1,3-Dichloropropene (-21.9%)

This affected the following samples:

1516445-BLK1
1516445-BS1
1516445-BSD1
1516445-MS1
1516445-MSD1
Sump 1
Trip Blank

SC11693-02 *Sump 1*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Acceptance Check Form

Client:	Environmental Compliance Services - Waterbury, VT
Project:	VT DEC - 12 North St. - Rutland, VT / 08-223948.00
Work Order:	SC11693
Sample(s) received on:	8/26/2015

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☑	☐	☐
Were custody seals intact?	☑	☐	☐
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC11693-02 **Client ID:** Sump 1

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	366	D	5.0	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	105	D	5.0	µg/l	SW846 8260C
Chloroform	17.6	D	5.0	µg/l	SW846 8260C
Ethylbenzene	13.8	D	5.0	µg/l	SW846 8260C
Isopropylbenzene	12.9	D	5.0	µg/l	SW846 8260C
m,p-Xylene	410	D	10.0	µg/l	SW846 8260C
Naphthalene	89.2	D	5.0	µg/l	SW846 8260C
n-Butylbenzene	9.6	D	5.0	µg/l	SW846 8260C
n-Propylbenzene	20.0	D	5.0	µg/l	SW846 8260C
o-Xylene	104	D	5.0	µg/l	SW846 8260C
sec-Butylbenzene	5.6	D	5.0	µg/l	SW846 8260C
Toluene	22.5	D	5.0	µg/l	SW846 8260C

Lab ID: SC11693-03 **Client ID:** Sump 2

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Gasoline	Calculated as		0.2	mg/l	SW846 8100Mod.
Total Petroleum Hydrocarbons	7.2		0.2	mg/l	SW846 8100Mod.
Unidentified	7.2		0.2	mg/l	SW846 8100Mod.

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip Blank	08-223948.00	Deionized Water	24-Aug-15 00:00	26-Aug-15
SC11693-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.5	1	SW846 8260C	27-Aug-15	27-Aug-15	GMA	1516445	X
67-64-1	Acetone	< 10.0		µg/l	10.0	2.5	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip Blank	08-223948.00	Deionized Water	24-Aug-15 00:00	26-Aug-15
SC11693-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.2	1	SW846 8260C	27-Aug-15	27-Aug-15	GMA	1516445	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.7	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.1	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	7.5	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	1.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	22.7	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Sump 1	08-223948.00	Ground Water	24-Aug-15 11:10	26-Aug-15
SC11693-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0	D	µg/l	5.0	2.7	5	SW846 8260C	27-Aug-15	27-Aug-15	GMA	1516445	X
67-64-1	Acetone	< 50.0	D	µg/l	50.0	12.4	5	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 2.5	D	µg/l	2.5	2.4	5	"	"	"	"	"	X
71-43-2	Benzene	< 5.0	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
108-86-1	Bromobenzene	< 5.0	D	µg/l	5.0	0.6	5	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 2.5	D	µg/l	2.5	0.9	5	"	"	"	"	"	X
75-25-2	Bromoform	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 10.0	D	µg/l	10.0	2.5	5	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 50.0	D	µg/l	50.0	6.2	5	"	"	"	"	"	X
104-51-8	n-Butylbenzene	**9.6**	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	**5.6**	D	µg/l	5.0	0.8	5	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 10.0	D	µg/l	10.0	1.3	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 10.0	D	µg/l	10.0	1.9	5	"	"	"	"	"	X
67-66-3	Chloroform	**17.6**	D	µg/l	5.0	2.0	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 10.0	D	µg/l	10.0	1.7	5	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0	D	µg/l	10.0	4.3	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 2.5	D	µg/l	2.5	1.2	5	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 2.5	D	µg/l	2.5	1.3	5	"	"	"	"	"	X
74-95-3	Dibromomethane	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 5.0	D	µg/l	5.0	0.8	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µg/l	10.0	2.9	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 5.0	D	µg/l	5.0	0.8	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 5.0	D	µg/l	5.0	0.8	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 5.0	D	µg/l	5.0	0.7	5	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 5.0	D	µg/l	5.0	3.4	5	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 2.5	D	µg/l	2.5	1.0	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.5	D	µg/l	2.5	1.3	5	"	"	"	"	"	X
100-41-4	Ethylbenzene	**13.8**	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 2.5	D	µg/l	2.5	2.0	5	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 50.0	D	µg/l	50.0	2.7	5	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Sump 1	08-223948.00	Ground Water	24-Aug-15 11:10	26-Aug-15
SC11693-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	**12.9**	D	µg/l	5.0	1.2	5	SW846 8260C	27-Aug-15	27-Aug-15	GMA	1516445	X
99-87-6	4-Isopropyltoluene	< 5.0	D	µg/l	5.0	1.9	5	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 5.0	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	µg/l	50.0	3.7	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 10.0	D	µg/l	10.0	1.4	5	"	"	"	"	"	X
91-20-3	Naphthalene	**89.2**	D	µg/l	5.0	2.0	5	"	"	"	"	"	X
103-65-1	n-Propylbenzene	**20.0**	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
100-42-5	Styrene	< 5.0	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5	D	µg/l	2.5	1.6	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 5.0	D	µg/l	5.0	2.9	5	"	"	"	"	"	X
108-88-3	Toluene	**22.5**	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 5.0	D	µg/l	5.0	1.9	5	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
79-01-6	Trichloroethene	< 5.0	D	µg/l	5.0	1.9	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0	D	µg/l	5.0	2.4	5	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	**366**	D	µg/l	5.0	2.0	5	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**105**	D	µg/l	5.0	4.4	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 5.0	D	µg/l	5.0	1.7	5	"	"	"	"	"	X
179601-23-1	m,p-Xylene	**410**	D	µg/l	10.0	1.9	5	"	"	"	"	"	X
95-47-6	o-Xylene	**104**	D	µg/l	5.0	2.4	5	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 10.0	D	µg/l	10.0	3.6	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 5.0	D	µg/l	5.0	1.7	5	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 5.0	D	µg/l	5.0	0.7	5	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 50.0	D	µg/l	50.0	37.4	5	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 100	D	µg/l	100	62.0	5	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0	D	µg/l	25.0	5.6	5	"	"	"	"	"	X
64-17-5	Ethanol	< 2000	D	µg/l	2000	114	5	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*101*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Sump 2 SC11693-03	08-223948.00	Ground Water	24-Aug-15 11:18	26-Aug-15

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Extractable Petroleum Hydrocarbons													
Fingerprinting by GC Prepared by method SW846 3510C													
8006-61-9	Gasoline	**Calculated as**		mg/l	0.2	0.1	1	SW846 8100Mod.	26-Aug-15	27-Aug-15	SEP	1516356	
68476-30-2	Fuel Oil #2	< 0.2		mg/l	0.2	0.08	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	< 0.2		mg/l	0.2	0.02	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	< 0.2		mg/l	0.2	0.1	1	"	"	"	"	"	
M09800000	Motor Oil	< 0.2		mg/l	0.2	0.1	1	"	"	"	"	"	
8032-32-4	Ligroin	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
J00100000	Aviation Fuel	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
	Hydraulic Oil	< 0.2		mg/l	0.2	0.02	1	"	"	"	"	"	
	Dielectric Fluid	< 0.2		mg/l	0.2	0.05	1	"	"	"	"	"	
	Unidentified	**7.2**		mg/l	0.2	0.05	1	"	"	"	"	"	
	Other Oil	< 0.2		mg/l	0.2	0.02	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**7.2**		mg/l	0.2	0.02	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*71*			*40-140 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
Blank (1516445-BLK1)					Prepared & Analyzed: 27-Aug-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
Blank (1516445-BLK1)					Prepared & Analyzed: 27-Aug-15					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*44.8*		µg/l		*50.0*		*90*	*70-130*		
Surrogate: Toluene-d8	*49.7*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.2*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*49.5*		µg/l		*50.0*		*99*	*70-130*		
LCS (1516445-BS1)					Prepared & Analyzed: 27-Aug-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.2**		µg/l		20.0		106	70-130		
Acetone	**19.1**		µg/l		20.0		96	70-130		
Acrylonitrile	**19.4**		µg/l		20.0		97	70-130		
Benzene	**19.2**		µg/l		20.0		96	70-130		
Bromobenzene	**20.1**		µg/l		20.0		100	70-130		
Bromochloromethane	**20.3**		µg/l		20.0		101	70-130		
Bromodichloromethane	**20.2**		µg/l		20.0		101	70-130		
Bromoform	**22.4**		µg/l		20.0		112	70-130		
Bromomethane	**21.3**		µg/l		20.0		106	70-130		
2-Butanone (MEK)	**18.8**		µg/l		20.0		94	70-130		
n-Butylbenzene	**20.6**		µg/l		20.0		103	70-130		
sec-Butylbenzene	**20.6**		µg/l		20.0		103	70-130		
tert-Butylbenzene	**22.1**		µg/l		20.0		111	70-130		
Carbon disulfide	**21.7**		µg/l		20.0		109	70-130		
Carbon tetrachloride	**17.9**		µg/l		20.0		89	70-130		
Chlorobenzene	**20.1**		µg/l		20.0		100	70-130		
Chloroethane	**21.1**		µg/l		20.0		106	70-130		
Chloroform	**18.6**		µg/l		20.0		93	70-130		
Chloromethane	**17.9**		µg/l		20.0		90	70-130		
2-Chlorotoluene	**19.9**		µg/l		20.0		99	70-130		
4-Chlorotoluene	**20.0**		µg/l		20.0		100	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
LCS (1516445-BS1)					Prepared & Analyzed: 27-Aug-15					
1,2-Dibromo-3-chloropropane	**19.1**		µg/l		20.0		95	70-130		
Dibromochloromethane	**20.7**		µg/l		20.0		104	70-130		
1,2-Dibromoethane (EDB)	**19.8**		µg/l		20.0		99	70-130		
Dibromomethane	**19.7**		µg/l		20.0		99	70-130		
1,2-Dichlorobenzene	**20.2**		µg/l		20.0		101	70-130		
1,3-Dichlorobenzene	**20.7**		µg/l		20.0		103	70-130		
1,4-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130		
Dichlorodifluoromethane (Freon12)	**19.2**		µg/l		20.0		96	70-130		
1,1-Dichloroethane	**19.4**		µg/l		20.0		97	70-130		
1,2-Dichloroethane	**18.6**		µg/l		20.0		93	70-130		
1,1-Dichloroethene	**21.9**		µg/l		20.0		110	70-130		
cis-1,2-Dichloroethene	**19.4**		µg/l		20.0		97	70-130		
trans-1,2-Dichloroethene	**20.3**		µg/l		20.0		101	70-130		
1,2-Dichloropropane	**18.7**		µg/l		20.0		94	70-130		
1,3-Dichloropropane	**18.9**		µg/l		20.0		95	70-130		
2,2-Dichloropropane	**17.4**		µg/l		20.0		87	70-130		
1,1-Dichloropropene	**20.3**		µg/l		20.0		102	70-130		
cis-1,3-Dichloropropene	**18.1**		µg/l		20.0		90	70-130		
trans-1,3-Dichloropropene	**15.6**		µg/l		20.0		78	70-130		
Ethylbenzene	**20.7**		µg/l		20.0		104	70-130		
Hexachlorobutadiene	**20.6**		µg/l		20.0		103	70-130		
2-Hexanone (MBK)	**19.2**		µg/l		20.0		96	70-130		
Isopropylbenzene	**21.4**		µg/l		20.0		107	70-130		
4-Isopropyltoluene	**21.1**		µg/l		20.0		106	70-130		
Methyl tert-butyl ether	**17.1**		µg/l		20.0		86	70-130		
4-Methyl-2-pentanone (MIBK)	**18.0**		µg/l		20.0		90	70-130		
Methylene chloride	**20.2**		µg/l		20.0		101	70-130		
Naphthalene	**18.1**		µg/l		20.0		91	70-130		
n-Propylbenzene	**21.6**		µg/l		20.0		108	70-130		
Styrene	**20.8**		µg/l		20.0		104	70-130		
1,1,1,2-Tetrachloroethane	**20.1**		µg/l		20.0		101	70-130		
1,1,2,2-Tetrachloroethane	**21.5**		µg/l		20.0		108	70-130		
Tetrachloroethene	**18.0**		µg/l		20.0		90	70-130		
Toluene	**19.4**		µg/l		20.0		97	70-130		
1,2,3-Trichlorobenzene	**20.4**		µg/l		20.0		102	70-130		
1,2,4-Trichlorobenzene	**17.3**		µg/l		20.0		86	70-130		
1,3,5-Trichlorobenzene	**19.8**		µg/l		20.0		99	70-130		
1,1,1-Trichloroethane	**18.7**		µg/l		20.0		93	70-130		
1,1,2-Trichloroethane	**19.9**		µg/l		20.0		100	70-130		
Trichloroethene	**20.6**		µg/l		20.0		103	70-130		
Trichlorofluoromethane (Freon 11)	**21.6**		µg/l		20.0		108	70-130		
1,2,3-Trichloropropane	**20.2**		µg/l		20.0		101	70-130		
1,2,4-Trimethylbenzene	**21.7**		µg/l		20.0		109	70-130		
1,3,5-Trimethylbenzene	**19.9**		µg/l		20.0		100	70-130		
Vinyl chloride	**19.9**		µg/l		20.0		99	70-130		
m,p-Xylene	**21.5**		µg/l		20.0		107	70-130		
o-Xylene	**20.9**		µg/l		20.0		105	70-130		
Tetrahydrofuran	**18.9**		µg/l		20.0		94	70-130		
Ethyl ether	**20.5**		µg/l		20.0		103	70-130		
Tert-amyl methyl ether	**14.3**		µg/l		20.0		72	70-130		
Ethyl tert-butyl ether	**14.8**		µg/l		20.0		74	70-130		
Di-isopropyl ether	**17.4**		µg/l		20.0		87	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
LCS (1516445-BS1)					Prepared & Analyzed: 27-Aug-15					
Tert-Butanol / butyl alcohol	**163**		µg/l		200		81	70-130		
1,4-Dioxane	**178**		µg/l		200		89	70-130		
trans-1,4-Dichloro-2-butene	**21.3**		µg/l		20.0		107	70-130		
Ethanol	**390**		µg/l		400		97	70-130		
Surrogate: 4-Bromofluorobenzene	*49.4*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*50.0*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.8*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*49.1*		µg/l		*50.0*		*98*	*70-130*		
LCS Dup (1516445-BSD1)					Prepared & Analyzed: 27-Aug-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.3**		µg/l		20.0		102	70-130	4	20
Acetone	**19.3**		µg/l		20.0		97	70-130	1	20
Acrylonitrile	**19.3**		µg/l		20.0		97	70-130	0.6	20
Benzene	**18.5**		µg/l		20.0		93	70-130	3	20
Bromobenzene	**19.5**		µg/l		20.0		97	70-130	3	20
Bromochloromethane	**19.9**		µg/l		20.0		100	70-130	2	20
Bromodichloromethane	**20.0**		µg/l		20.0		100	70-130	0.8	20
Bromoform	**22.0**		µg/l		20.0		110	70-130	2	20
Bromomethane	**20.4**		µg/l		20.0		102	70-130	4	20
2-Butanone (MEK)	**20.7**		µg/l		20.0		104	70-130	10	20
n-Butylbenzene	**20.3**		µg/l		20.0		102	70-130	1	20
sec-Butylbenzene	**20.1**		µg/l		20.0		101	70-130	2	20
tert-Butylbenzene	**21.4**		µg/l		20.0		107	70-130	3	20
Carbon disulfide	**20.7**		µg/l		20.0		103	70-130	5	20
Carbon tetrachloride	**17.9**		µg/l		20.0		89	70-130	0.1	20
Chlorobenzene	**19.7**		µg/l		20.0		98	70-130	2	20
Chloroethane	**19.5**		µg/l		20.0		98	70-130	8	20
Chloroform	**18.0**		µg/l		20.0		90	70-130	3	20
Chloromethane	**16.9**		µg/l		20.0		85	70-130	6	20
2-Chlorotoluene	**19.6**		µg/l		20.0		98	70-130	2	20
4-Chlorotoluene	**19.4**		µg/l		20.0		97	70-130	3	20
1,2-Dibromo-3-chloropropane	**19.8**		µg/l		20.0		99	70-130	4	20
Dibromochloromethane	**20.3**		µg/l		20.0		102	70-130	2	20
1,2-Dibromoethane (EDB)	**19.8**		µg/l		20.0		99	70-130	0.2	20
Dibromomethane	**18.9**		µg/l		20.0		95	70-130	4	20
1,2-Dichlorobenzene	**19.7**		µg/l		20.0		98	70-130	3	20
1,3-Dichlorobenzene	**19.9**		µg/l		20.0		99	70-130	4	20
1,4-Dichlorobenzene	**18.4**		µg/l		20.0		92	70-130	3	20
Dichlorodifluoromethane (Freon12)	**18.0**		µg/l		20.0		90	70-130	6	20
1,1-Dichloroethane	**18.3**		µg/l		20.0		91	70-130	6	20
1,2-Dichloroethane	**18.8**		µg/l		20.0		94	70-130	0.8	20
1,1-Dichloroethene	**21.3**		µg/l		20.0		106	70-130	3	20
cis-1,2-Dichloroethene	**18.9**		µg/l		20.0		94	70-130	3	20
trans-1,2-Dichloroethene	**18.8**		µg/l		20.0		94	70-130	7	20
1,2-Dichloropropane	**18.0**		µg/l		20.0		90	70-130	4	20
1,3-Dichloropropane	**18.7**		µg/l		20.0		93	70-130	1	20
2,2-Dichloropropane	**16.4**		µg/l		20.0		82	70-130	6	20
1,1-Dichloropropene	**19.6**		µg/l		20.0		98	70-130	4	20
cis-1,3-Dichloropropene	**17.9**		µg/l		20.0		90	70-130	1	20
trans-1,3-Dichloropropene	**14.9**		µg/l		20.0		74	70-130	5	20
Ethylbenzene	**20.4**		µg/l		20.0		102	70-130	1	20
Hexachlorobutadiene	**20.0**		µg/l		20.0		100	70-130	3	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
LCS Dup (1516445-BSD1)					Prepared & Analyzed: 27-Aug-15					
2-Hexanone (MBK)	**18.8**		µg/l		20.0		94	70-130	2	20
Isopropylbenzene	**20.7**		µg/l		20.0		103	70-130	3	20
4-Isopropyltoluene	**20.8**		µg/l		20.0		104	70-130	2	20
Methyl tert-butyl ether	**17.2**		µg/l		20.0		86	70-130	0.3	20
4-Methyl-2-pentanone (MIBK)	**18.0**		µg/l		20.0		90	70-130	0.1	20
Methylene chloride	**19.5**		µg/l		20.0		98	70-130	3	20
Naphthalene	**18.7**		µg/l		20.0		94	70-130	3	20
n-Propylbenzene	**20.6**		µg/l		20.0		103	70-130	5	20
Styrene	**20.6**		µg/l		20.0		103	70-130	1	20
1,1,1,2-Tetrachloroethane	**19.6**		µg/l		20.0		98	70-130	3	20
1,1,2,2-Tetrachloroethane	**21.4**		µg/l		20.0		107	70-130	0.3	20
Tetrachloroethene	**17.4**		µg/l		20.0		87	70-130	3	20
Toluene	**19.0**		µg/l		20.0		95	70-130	2	20
1,2,3-Trichlorobenzene	**20.5**		µg/l		20.0		102	70-130	0.4	20
1,2,4-Trichlorobenzene	**16.8**		µg/l		20.0		84	70-130	3	20
1,3,5-Trichlorobenzene	**19.3**		µg/l		20.0		97	70-130	2	20
1,1,1-Trichloroethane	**18.3**		µg/l		20.0		91	70-130	2	20
1,1,2-Trichloroethane	**19.6**		µg/l		20.0		98	70-130	2	20
Trichloroethene	**20.0**		µg/l		20.0		100	70-130	3	20
Trichlorofluoromethane (Freon 11)	**20.6**		µg/l		20.0		103	70-130	5	20
1,2,3-Trichloropropane	**20.4**		µg/l		20.0		102	70-130	1	20
1,2,4-Trimethylbenzene	**20.8**		µg/l		20.0		104	70-130	5	20
1,3,5-Trimethylbenzene	**19.5**		µg/l		20.0		98	70-130	2	20
Vinyl chloride	**19.9**		µg/l		20.0		100	70-130	0.2	20
m,p-Xylene	**21.0**		µg/l		20.0		105	70-130	2	20
o-Xylene	**20.5**		µg/l		20.0		102	70-130	2	20
Tetrahydrofuran	**18.6**		µg/l		20.0		93	70-130	1	20
Ethyl ether	**19.6**		µg/l		20.0		98	70-130	5	20
Tert-amyl methyl ether	**14.1**		µg/l		20.0		70	70-130	1	20
Ethyl tert-butyl ether	**14.7**		µg/l		20.0		74	70-130	0.7	20
Di-isopropyl ether	**17.5**		µg/l		20.0		88	70-130	0.5	20
Tert-Butanol / butyl alcohol	**166**		µg/l		200		83	70-130	2	20
1,4-Dioxane	**189**		µg/l		200		95	70-130	6	20
trans-1,4-Dichloro-2-butene	**19.8**		µg/l		20.0		99	70-130	7	20
Ethanol	**377**		µg/l		400		94	70-130	3	20
Surrogate: 4-Bromofluorobenzene	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*49.4*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.1*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*48.7*		µg/l		*50.0*		*97*	*70-130*		
Matrix Spike (1516445-MS1)			**Source: SC11693-02**		Prepared & Analyzed: 27-Aug-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.9**	D	µg/l		20.0	BRL	105	70-130		
Acetone	**77.6**	QM7, D	µg/l		20.0	BRL	388	70-130		
Acrylonitrile	**20.1**	D	µg/l		20.0	BRL	101	70-130		
Benzene	**19.1**	D	µg/l		20.0	BRL	95	70-130		
Bromobenzene	**22.0**	D	µg/l		20.0	BRL	110	70-130		
Bromochloromethane	**20.1**	D	µg/l		20.0	BRL	100	70-130		
Bromodichloromethane	**22.1**	D	µg/l		20.0	BRL	110	70-130		
Bromoform	**27.5**	QM7, D	µg/l		20.0	BRL	138	70-130		
Bromomethane	**17.4**	D	µg/l		20.0	BRL	87	70-130		
2-Butanone (MEK)	**19.5**	D	µg/l		20.0	BRL	98	70-130		
n-Butylbenzene	**25.8**	D	µg/l		20.0	1.9	119	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
Matrix Spike (1516445-MS1)			**Source: SC11693-02**		Prepared & Analyzed: 27-Aug-15					
sec-Butylbenzene	**25.3**	D	µg/l		20.0	1.1	121	70-130		
tert-Butylbenzene	**26.4**	QM7, D	µg/l		20.0	BRL	132	70-130		
Carbon disulfide	**12.7**	QM7, D	µg/l		20.0	BRL	63	70-130		
Carbon tetrachloride	**21.8**	D	µg/l		20.0	BRL	109	70-130		
Chlorobenzene	**21.5**	D	µg/l		20.0	BRL	107	70-130		
Chloroethane	**17.6**	D	µg/l		20.0	BRL	88	70-130		
Chloroform	**22.6**	D	µg/l		20.0	3.5	95	70-130		
Chloromethane	**13.0**	QM7, D	µg/l		20.0	BRL	65	70-130		
2-Chlorotoluene	**22.0**	D	µg/l		20.0	BRL	110	70-130		
4-Chlorotoluene	**29.6**	QM7, D	µg/l		20.0	BRL	148	70-130		
1,2-Dibromo-3-chloropropane	**22.2**	D	µg/l		20.0	BRL	111	70-130		
Dibromochloromethane	**23.5**	D	µg/l		20.0	BRL	118	70-130		
1,2-Dibromoethane (EDB)	**21.4**	D	µg/l		20.0	BRL	107	70-130		
Dibromomethane	**20.1**	D	µg/l		20.0	BRL	100	70-130		
1,2-Dichlorobenzene	**21.9**	D	µg/l		20.0	BRL	110	70-130		
1,3-Dichlorobenzene	**25.1**	D	µg/l		20.0	BRL	126	70-130		
1,4-Dichlorobenzene	**20.7**	D	µg/l		20.0	BRL	104	70-130		
Dichlorodifluoromethane (Freon12)	**16.7**	D	µg/l		20.0	BRL	84	70-130		
1,1-Dichloroethane	**19.3**	D	µg/l		20.0	BRL	96	70-130		
1,2-Dichloroethane	**19.0**	D	µg/l		20.0	BRL	95	70-130		
1,1-Dichloroethene	**19.9**	D	µg/l		20.0	BRL	99	70-130		
cis-1,2-Dichloroethene	**19.8**	D	µg/l		20.0	BRL	99	70-130		
trans-1,2-Dichloroethene	**18.6**	D	µg/l		20.0	BRL	93	70-130		
1,2-Dichloropropane	**19.2**	D	µg/l		20.0	BRL	96	70-130		
1,3-Dichloropropane	**19.1**	D	µg/l		20.0	BRL	96	70-130		
2,2-Dichloropropane	**23.8**	D	µg/l		20.0	BRL	119	70-130		
1,1-Dichloropropene	**19.8**	D	µg/l		20.0	BRL	99	70-130		
cis-1,3-Dichloropropene	**21.0**	D	µg/l		20.0	BRL	105	70-130		
trans-1,3-Dichloropropene	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Ethylbenzene	**25.0**	D	µg/l		20.0	2.8	111	70-130		
Hexachlorobutadiene	**22.7**	D	µg/l		20.0	BRL	113	70-130		
2-Hexanone (MBK)	**20.4**	D	µg/l		20.0	BRL	102	70-130		
Isopropylbenzene	**26.3**	D	µg/l		20.0	2.6	119	70-130		
4-Isopropyltoluene	**24.3**	D	µg/l		20.0	0.7	118	70-130		
Methyl tert-butyl ether	**18.9**	D	µg/l		20.0	BRL	94	70-130		
4-Methyl-2-pentanone (MIBK)	**20.3**	D	µg/l		20.0	BRL	101	70-130		
Methylene chloride	**18.5**	D	µg/l		20.0	BRL	92	70-130		
Naphthalene	**40.3**	D	µg/l		20.0	17.8	112	70-130		
n-Propylbenzene	**28.0**	D	µg/l		20.0	4.0	120	70-130		
Styrene	**23.4**	D	µg/l		20.0	BRL	117	70-130		
1,1,1,2-Tetrachloroethane	**24.0**	D	µg/l		20.0	BRL	120	70-130		
1,1,2,2-Tetrachloroethane	**24.3**	D	µg/l		20.0	BRL	122	70-130		
Tetrachloroethene	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Toluene	**23.9**	D	µg/l		20.0	4.5	97	70-130		
1,2,3-Trichlorobenzene	**24.4**	D	µg/l		20.0	BRL	122	70-130		
1,2,4-Trichlorobenzene	**21.7**	D	µg/l		20.0	BRL	108	70-130		
1,3,5-Trichlorobenzene	**23.1**	D	µg/l		20.0	BRL	116	70-130		
1,1,1-Trichloroethane	**22.0**	D	µg/l		20.0	BRL	110	70-130		
1,1,2-Trichloroethane	**21.4**	D	µg/l		20.0	BRL	107	70-130		
Trichloroethene	**20.1**	D	µg/l		20.0	BRL	100	70-130		
Trichlorofluoromethane (Freon 11)	**19.9**	D	µg/l		20.0	BRL	100	70-130		
1,2,3-Trichloropropane	**21.5**	D	µg/l		20.0	BRL	108	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
Matrix Spike (1516445-MS1)			**Source: SC11693-02**		Prepared & Analyzed: 27-Aug-15					
1,2,4-Trimethylbenzene	**91.7**	D	µg/l		20.0	73.2	92	70-130		
1,3,5-Trimethylbenzene	**41.8**	D	µg/l		20.0	20.9	104	70-130		
Vinyl chloride	**15.9**	D	µg/l		20.0	BRL	79	70-130		
m,p-Xylene	**95.3**	QM7, D	µg/l		20.0	82.0	67	70-130		
o-Xylene	**43.0**	D	µg/l		20.0	20.8	111	70-130		
Tetrahydrofuran	**21.6**	D	µg/l		20.0	BRL	108	70-130		
Ethyl ether	**18.4**	D	µg/l		20.0	BRL	92	70-130		
Tert-amyl methyl ether	**17.2**	D	µg/l		20.0	BRL	86	70-130		
Ethyl tert-butyl ether	**17.6**	D	µg/l		20.0	BRL	88	70-130		
Di-isopropyl ether	**18.6**	D	µg/l		20.0	BRL	93	70-130		
Tert-Butanol / butyl alcohol	**184**	D	µg/l		200	BRL	92	70-130		
1,4-Dioxane	**193**	D	µg/l		200	BRL	96	70-130		
trans-1,4-Dichloro-2-butene	**25.1**	D	µg/l		20.0	BRL	125	70-130		
Ethanol	**400**	D	µg/l		400	BRL	100	70-130		
Surrogate: 4-Bromofluorobenzene	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*51.8*		µg/l		*50.0*		*104*	*70-130*		
Matrix Spike Dup (1516445-MSD1)			**Source: SC11693-02**		Prepared & Analyzed: 27-Aug-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.4**	D	µg/l		20.0	BRL	97	70-130	8	20
Acetone	**73.8**	QM7, D	µg/l		20.0	BRL	369	70-130	5	20
Acrylonitrile	**20.1**	D	µg/l		20.0	BRL	100	70-130	0.1	20
Benzene	**18.2**	D	µg/l		20.0	BRL	91	70-130	5	20
Bromobenzene	**21.6**	D	µg/l		20.0	BRL	108	70-130	2	20
Bromochloromethane	**19.8**	D	µg/l		20.0	BRL	99	70-130	1	20
Bromodichloromethane	**21.4**	D	µg/l		20.0	BRL	107	70-130	3	20
Bromoform	**25.9**	D	µg/l		20.0	BRL	129	70-130	6	20
Bromomethane	**16.5**	D	µg/l		20.0	BRL	82	70-130	5	20
2-Butanone (MEK)	**19.9**	D	µg/l		20.0	BRL	100	70-130	2	20
n-Butylbenzene	**24.6**	D	µg/l		20.0	1.9	113	70-130	5	20
sec-Butylbenzene	**24.3**	D	µg/l		20.0	1.1	116	70-130	4	20
tert-Butylbenzene	**25.2**	D	µg/l		20.0	BRL	126	70-130	5	20
Carbon disulfide	**11.6**	QM7, D	µg/l		20.0	BRL	58	70-130	9	20
Carbon tetrachloride	**19.2**	D	µg/l		20.0	BRL	96	70-130	12	20
Chlorobenzene	**20.8**	D	µg/l		20.0	BRL	104	70-130	3	20
Chloroethane	**16.6**	D	µg/l		20.0	BRL	83	70-130	6	20
Chloroform	**21.8**	D	µg/l		20.0	3.5	91	70-130	4	20
Chloromethane	**12.0**	QM7, D	µg/l		20.0	BRL	60	70-130	8	20
2-Chlorotoluene	**21.3**	D	µg/l		20.0	BRL	107	70-130	3	20
4-Chlorotoluene	**28.3**	QM7, D	µg/l		20.0	BRL	141	70-130	5	20
1,2-Dibromo-3-chloropropane	**20.2**	D	µg/l		20.0	BRL	101	70-130	9	20
Dibromochloromethane	**22.2**	D	µg/l		20.0	BRL	111	70-130	6	20
1,2-Dibromoethane (EDB)	**20.4**	D	µg/l		20.0	BRL	102	70-130	5	20
Dibromomethane	**19.0**	D	µg/l		20.0	BRL	95	70-130	5	20
1,2-Dichlorobenzene	**22.0**	D	µg/l		20.0	BRL	110	70-130	0.4	20
1,3-Dichlorobenzene	**24.6**	D	µg/l		20.0	BRL	123	70-130	2	20
1,4-Dichlorobenzene	**20.2**	D	µg/l		20.0	BRL	101	70-130	2	20
Dichlorodifluoromethane (Freon12)	**15.5**	D	µg/l		20.0	BRL	77	70-130	8	20
1,1-Dichloroethane	**18.5**	D	µg/l		20.0	BRL	92	70-130	4	20
1,2-Dichloroethane	**18.2**	D	µg/l		20.0	BRL	91	70-130	5	20
1,1-Dichloroethene	**18.7**	D	µg/l		20.0	BRL	94	70-130	6	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516445 - SW846 5030 Water MS										
Matrix Spike Dup (1516445-MSD1)			**Source: SC11693-02**		Prepared & Analyzed: 27-Aug-15					
cis-1,2-Dichloroethene	**19.0**	D	µg/l		20.0	BRL	95	70-130	4	20
trans-1,2-Dichloroethene	**17.9**	D	µg/l		20.0	BRL	89	70-130	4	20
1,2-Dichloropropane	**18.6**	D	µg/l		20.0	BRL	93	70-130	3	20
1,3-Dichloropropane	**19.1**	D	µg/l		20.0	BRL	96	70-130	0.2	20
2,2-Dichloropropane	**21.0**	D	µg/l		20.0	BRL	105	70-130	12	20
1,1-Dichloropropene	**19.2**	D	µg/l		20.0	BRL	96	70-130	3	20
cis-1,3-Dichloropropene	**20.2**	D	µg/l		20.0	BRL	101	70-130	4	20
trans-1,3-Dichloropropene	**17.7**	D	µg/l		20.0	BRL	89	70-130	6	20
Ethylbenzene	**24.1**	D	µg/l		20.0	2.8	106	70-130	4	20
Hexachlorobutadiene	**21.9**	D	µg/l		20.0	BRL	109	70-130	4	20
2-Hexanone (MBK)	**20.4**	D	µg/l		20.0	BRL	102	70-130	0.1	20
Isopropylbenzene	**25.3**	D	µg/l		20.0	2.6	114	70-130	4	20
4-Isopropyltoluene	**23.3**	D	µg/l		20.0	0.7	113	70-130	4	20
Methyl tert-butyl ether	**18.4**	D	µg/l		20.0	BRL	92	70-130	3	20
4-Methyl-2-pentanone (MIBK)	**19.4**	D	µg/l		20.0	BRL	97	70-130	5	20
Methylene chloride	**17.7**	D	µg/l		20.0	BRL	88	70-130	4	20
Naphthalene	**40.7**	D	µg/l		20.0	17.8	114	70-130	2	20
n-Propylbenzene	**26.7**	D	µg/l		20.0	4.0	114	70-130	6	20
Styrene	**22.9**	D	µg/l		20.0	BRL	114	70-130	2	20
1,1,1,2-Tetrachloroethane	**22.5**	D	µg/l		20.0	BRL	112	70-130	7	20
1,1,2,2-Tetrachloroethane	**23.4**	D	µg/l		20.0	BRL	117	70-130	4	20
Tetrachloroethene	**17.7**	D	µg/l		20.0	BRL	89	70-130	6	20
Toluene	**23.1**	D	µg/l		20.0	4.5	93	70-130	4	20
1,2,3-Trichlorobenzene	**24.2**	D	µg/l		20.0	BRL	121	70-130	1	20
1,2,4-Trichlorobenzene	**21.0**	D	µg/l		20.0	BRL	105	70-130	3	20
1,3,5-Trichlorobenzene	**22.6**	D	µg/l		20.0	BRL	113	70-130	2	20
1,1,1-Trichloroethane	**20.1**	D	µg/l		20.0	BRL	100	70-130	9	20
1,1,2-Trichloroethane	**20.8**	D	µg/l		20.0	BRL	104	70-130	3	20
Trichloroethene	**19.1**	D	µg/l		20.0	BRL	95	70-130	5	20
Trichlorofluoromethane (Freon 11)	**18.5**	D	µg/l		20.0	BRL	92	70-130	7	20
1,2,3-Trichloropropane	**21.2**	D	µg/l		20.0	BRL	106	70-130	1	20
1,2,4-Trimethylbenzene	**89.2**	D	µg/l		20.0	73.2	80	70-130	15	20
1,3,5-Trimethylbenzene	**40.3**	D	µg/l		20.0	20.9	97	70-130	7	20
Vinyl chloride	**14.8**	D	µg/l		20.0	BRL	74	70-130	7	20
m,p-Xylene	**91.3**	QM7, QR5, D	µg/l		20.0	82.0	47	70-130	36	20
o-Xylene	**41.9**	D	µg/l		20.0	20.8	105	70-130	5	20
Tetrahydrofuran	**21.6**	D	µg/l		20.0	BRL	108	70-130	0.1	20
Ethyl ether	**17.9**	D	µg/l		20.0	BRL	89	70-130	3	20
Tert-amyl methyl ether	**16.4**	D	µg/l		20.0	BRL	82	70-130	5	20
Ethyl tert-butyl ether	**17.1**	D	µg/l		20.0	BRL	86	70-130	3	20
Di-isopropyl ether	**18.1**	D	µg/l		20.0	BRL	91	70-130	3	20
Tert-Butanol / butyl alcohol	**180**	D	µg/l		200	BRL	90	70-130	2	20
1,4-Dioxane	**194**	D	µg/l		200	BRL	97	70-130	0.6	20
trans-1,4-Dichloro-2-butene	**23.8**	D	µg/l		20.0	BRL	119	70-130	5	20
Ethanol	**385**	D	µg/l		400	BRL	96	70-130	4	20
Surrogate: 4-Bromofluorobenzene	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Dibromofluoromethane	*51.0*		µg/l		*50.0*		*102*	*70-130*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1516356 - SW846 3510C										
Blank (1516356-BLK1)						Prepared: 26-Aug-15 Analyzed: 27-Aug-15				
Gasoline	< 0.2		mg/l	0.2						
Fuel Oil #2	< 0.2		mg/l	0.2						
Fuel Oil #4	< 0.2		mg/l	0.2						
Fuel Oil #6	< 0.2		mg/l	0.2						
Motor Oil	< 0.2		mg/l	0.2						
Ligroin	< 0.2		mg/l	0.2						
Aviation Fuel	< 0.2		mg/l	0.2						
Hydraulic Oil	< 0.2		mg/l	0.2						
Dielectric Fluid	< 0.2		mg/l	0.2						
Unidentified	< 0.2		mg/l	0.2						
Other Oil	< 0.2		mg/l	0.2						
Total Petroleum Hydrocarbons	< 0.2		mg/l	0.2						
Surrogate: 1-Chlorooctadecane	*0.0489*		mg/l		*0.0500*		*98*	*40-140*		
LCS (1516356-BS2)						Prepared: 26-Aug-15 Analyzed: 27-Aug-15				
Fuel Oil #2	**2.2**		mg/l	0.2	2.00		112	40-140		
Surrogate: 1-Chlorooctadecane	*0.0498*		mg/l		*0.0500*		*100*	*40-140*		
LCS Dup (1516356-BSD2)						Prepared: 26-Aug-15 Analyzed: 27-Aug-15				
Fuel Oil #2	**2.2**		mg/l	0.2	2.00		112	40-140	0	200
Surrogate: 1-Chlorooctadecane	*0.0482*		mg/l		*0.0500*		*96*	*40-140*		

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR5	RPD out of acceptance range.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as Calculated as.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Rebecca Merz

SC11693JLH

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

☐ Standard TAT - 7 to 10 business days

☒ Rush TAT - Date Needed: 8/28/15

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: ECS
1 Elm st., suite 3
Waterbury, VT
05676

Telephone #: 802-241-4131
Project Mgr: E. Urch

Invoice To: ECS - Agawam

P.O No.: 08-223848 Quote/RQN: 6945

Project No: 08-223848.00
Site Name: VTDEC
Location: 12 North st. Rutland State: VT
Sampler(s): M. Emerson

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

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= Deionized H_2O X2= X3=

G= Grab C=Compsite

List Preservative Code below: 2 2

QA/QC Reporting Notes:
* additional charges may appply

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

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	8260	TPH 8100 High Fuel ID	Check if chlorinated
SC11693-01	Trip blank	8/24/15		G	X1	1				X		☐
02	Sump 1	↓	1110	G	GW	3				X		☐
03	Sump 2	↓	1118	G	GW		1				X	☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	[signature]	8/24/15	1910	Observed 4.6
[signature]	UPS	8/25/15	1700	Correction Factor 0
UPS	JLH	8/26/15	1030	Corrected 4.6
				IR ID # 02

☐ EDD format:
☒ E-mail to: eurch@ecsenvvt.com

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

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS StoreÂ®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, UPS Alliances (Office DepotÂ® or StaplesÂ®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
THE UPS STORE
112 S MAIN ST
STOWE ,VT 05672

FOLD HERE

AMY BETH CONNELL
8024344500
ECS WATERBURY
1 ELM STREET
WATERBURY VT 05676

20 LBS 1 OF 1

SHIP TO:
LAB
413 789 9018
SPECTRUM ANALYTICAL
11 ALMGREN DRIVE
AGAWAM MA 01001-3831

MA 011 9-06

UPS NEXT DAY AIR 1
TRACKING #: 1Z F31 7E5 01 9805 1955

BILLING: F/C BILL RECEIVER

Location Reference: 0008
Project Number: samples

CS 17.5.27 WNTNV50 E6.0A 07/2015

eurofins | Spectrum Analytical

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Report Date:
18-Sep-15 16:15

Laboratory Report

Environmental Compliance Services
1 Elm St. Suite 3
Waterbury, VT 05676
Attn: Erik Urch

Project: Poplawski Residence - Rutland, VT
Project #: 08-223948.00

Laboratory ID	Client Sample ID	Container	Matrix	Date Sampled	Date Received
SC12142-01	IA-Basement A	Summa canister 6 liter	Indoor/ Ambient Air	03-Sep-15 09:21	08-Sep-15 10:30
SC12142-02	IA-Floor 1A	Summa canister 6 liter	Indoor/ Ambient Air	03-Sep-15 09:13	08-Sep-15 10:30
SC12142-03	IA-Floor 2A	Summa canister 6 liter	Indoor/ Ambient Air	03-Sep-15 09:11	08-Sep-15 10:30

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00098
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Eurofins Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 27 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

Samples are received and the pressure is recorded from the gauge on the canister. If a canister does not have a gauge, a vacuum gauge is attached to the valve and pressure is recorded. If the canister is below -10 psig, the can must be pressurized to 0 psig. Tedlar bags do not have the pressure recorded. The can pressure can be located within this report in the sample header information.

If a Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA TO-15L

Calibration:

1509017

Analyte quantified by quadratic equation type calibration.

1,1,1-Trichloroethane
4-Methyl-2-pentanone (MIBK)
Acetone
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chloroethane
Chloromethane
Dichlorodifluoromethane (Freon12)
Ethanol
Methyl tert-butyl ether
Methylene chloride
n-Heptane
Propene
Tetrahydrofuran
Toluene

This affected the following samples:

1517637-BLK1
1517637-BS1
1517726-BLK1
1517726-BS1
1517798-BLK1
1517798-BS1
IA-Basement A
IA-Floor 1A
IA-Floor 2A
S508379-ICV1
S508413-CCV1
S508441-CCV1
S508487-CCV1

Blanks:

1517637-BLK1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

EPA TO-15L

Blanks:

1517637-BLK1

This compound is a common laboratory contaminant.

Methylene chloride

1517726-BLK1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

This compound is a common laboratory contaminant.

Methylene chloride

1517798-BLK1

This compound is a common laboratory contaminant.

Methylene chloride

Laboratory Control Samples:

1517637-BS1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

1517726-BS1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

1517798-BS1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

Samples:

S508413-CCV1

Analyte percent difference is outside individual acceptance criteria (30), but within overall method allowances.

1,2,4-Trichlorobenzene (33.9%)

This affected the following samples:

1517637-BLK1
1517637-BS1
IA-Basement A
IA-Floor 1A
IA-Floor 2A

S508441-CCV1

Analyte percent drift is outside individual acceptance criteria (30), but within overall method allowances.

Ethanol (80.0%)

EPA TO-15L

Samples:

S508441-CCV1

This affected the following samples:

1517726-BLK1
1517726-BS1
IA-Floor 1A
IA-Floor 2A

SC12142-01 *IA-Basement A*

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

Ethanol

SC12142-01RE1 *IA-Basement A*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC12142-02 *IA-Floor 1A*

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

Ethanol
Ethyl acetate

SC12142-02RE1 *IA-Floor 1A*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC12142-03 *IA-Floor 2A*

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Methylene chloride

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

Acetone
Ethanol

SC12142-03RE1 *IA-Floor 2A*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Acceptance Check Form

Client:	Environmental Compliance Services - Waterbury, VT
Project:	Poplawski Residence - Rutland, VT / 08-223948.00
Work Order:	SC12142
Sample(s) received on:	9/8/2015

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☑	☐	☐
Were custody seals intact?	☑	☐	☐
Were samples received at a temperature of ≤ 6°C?	☐	☐	☑
Were samples cooled on ice upon transfer to laboratory representative?	☐	☐	☑
Were samples refrigerated upon transfer to laboratory representative?	☐	☐	☑
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC12142-01 **Client ID:** IA-Basement A

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	0.410		0.100	ppbv	EPA TO-15L
1,1,2-Trichlorotrifluoroethane (Freon 113)	0.150		0.100	ppbv	EPA TO-15L
1,2,4-Trichlorobenzene	0.120		0.100	ppbv	EPA TO-15L
1,2,4-Trimethylbenzene	4.92		0.100	ppbv	EPA TO-15L
1,3,5-Trimethylbenzene	1.86		0.100	ppbv	EPA TO-15L
2-Butanone (MEK)	0.840		0.100	ppbv	EPA TO-15L
2-Hexanone (MBK)	0.310		0.100	ppbv	EPA TO-15L
4-Ethyltoluene	1.82		0.100	ppbv	EPA TO-15L
4-Methyl-2-pentanone (MIBK)	0.320		0.100	ppbv	EPA TO-15L
Acetone	9.99		0.500	ppbv	EPA TO-15L
Benzene	0.260		0.100	ppbv	EPA TO-15L
Carbon disulfide	0.700		0.500	ppbv	EPA TO-15L
Carbon tetrachloride	0.170		0.100	ppbv	EPA TO-15L
Chloroform	2.33		0.100	ppbv	EPA TO-15L
Cyclohexane	2.07		0.100	ppbv	EPA TO-15L
Dichlorodifluoromethane (Freon12)	0.700		0.100	ppbv	EPA TO-15L
Ethanol	26.0	E	0.500	ppbv	EPA TO-15L
Ethyl acetate	6.88		0.100	ppbv	EPA TO-15L
Ethylbenzene	0.470		0.100	ppbv	EPA TO-15L
Hexane	7.32		0.500	ppbv	EPA TO-15L
Isopropyl alcohol	1.20		0.500	ppbv	EPA TO-15L
Isopropylbenzene	0.330		0.100	ppbv	EPA TO-15L
m,p-Xylene	5.45		0.200	ppbv	EPA TO-15L
Methylene chloride	1.25	B	0.100	ppbv	EPA TO-15L
n-Butylbenzene	0.290		0.100	ppbv	EPA TO-15L
o-Xylene	1.99		0.100	ppbv	EPA TO-15L
Tetrahydrofuran	1.52		0.100	ppbv	EPA TO-15L
Toluene	1.25		0.100	ppbv	EPA TO-15L
Trichlorofluoromethane (Freon 11)	0.380		0.100	ppbv	EPA TO-15L

Lab ID: SC12142-01RE1 **Client ID:** IA-Basement A

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Ethanol	19.9	D	5.00	ppbv	EPA TO-15L

Lab ID: SC12142-02 **Client ID:** IA-Floor 1A

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	0.150		0.100	ppbv	EPA TO-15L
1,1,2-Trichlorotrifluoroethane (Freon 113)	0.110		0.100	ppbv	EPA TO-15L
1,2,4-Trimethylbenzene	0.580		0.100	ppbv	EPA TO-15L
1,3,5-Trimethylbenzene	0.210		0.100	ppbv	EPA TO-15L
2-Butanone (MEK)	1.39		0.100	ppbv	EPA TO-15L
4-Ethyltoluene	0.210		0.100	ppbv	EPA TO-15L
4-Isopropyltoluene	0.170		0.100	ppbv	EPA TO-15L
4-Methyl-2-pentanone (MIBK)	0.150		0.100	ppbv	EPA TO-15L
Acetone	9.72		0.500	ppbv	EPA TO-15L
Benzene	0.440		0.100	ppbv	EPA TO-15L
Carbon tetrachloride	0.140		0.100	ppbv	EPA TO-15L
Chloroform	0.390		0.100	ppbv	EPA TO-15L
Cyclohexane	0.680		0.100	ppbv	EPA TO-15L
Dichlorodifluoromethane (Freon12)	0.800		0.100	ppbv	EPA TO-15L
Ethanol	92.6	E	0.500	ppbv	EPA TO-15L
Ethyl acetate	33.6	E	0.100	ppbv	EPA TO-15L
Ethylbenzene	0.160		0.100	ppbv	EPA TO-15L
Hexane	1.79		0.500	ppbv	EPA TO-15L
Isopropyl alcohol	1.68		0.500	ppbv	EPA TO-15L
m,p-Xylene	0.830		0.200	ppbv	EPA TO-15L
Methylene chloride	1.04	B	0.100	ppbv	EPA TO-15L
n-Heptane	0.100		0.100	ppbv	EPA TO-15L
o-Xylene	0.340		0.100	ppbv	EPA TO-15L
Tetrahydrofuran	0.370		0.100	ppbv	EPA TO-15L
Toluene	2.09		0.100	ppbv	EPA TO-15L
Trichlorofluoromethane (Freon 11)	0.310		0.100	ppbv	EPA TO-15L

Lab ID: SC12142-02RE1 **Client ID:** IA-Floor 1A

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Ethanol	187	D	10.0	ppbv	EPA TO-15L
Ethyl acetate	26.4	D	2.00	ppbv	EPA TO-15L

Lab ID: SC12142-03 **Client ID:** IA-Floor 2A

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,2-Trichlorotrifluoroethane (Freon 113)	0.130		0.100	ppbv	EPA TO-15L
1,2,4-Trimethylbenzene	0.480		0.100	ppbv	EPA TO-15L
1,3,5-Trimethylbenzene	0.160		0.100	ppbv	EPA TO-15L
2-Butanone (MEK)	1.83		0.100	ppbv	EPA TO-15L
2-Hexanone (MBK)	0.110		0.100	ppbv	EPA TO-15L
4-Ethyltoluene	0.160		0.100	ppbv	EPA TO-15L
Acetone	11.6	E	0.500	ppbv	EPA TO-15L
Benzene	0.260		0.100	ppbv	EPA TO-15L
Carbon disulfide	1.73		0.500	ppbv	EPA TO-15L
Carbon tetrachloride	0.160		0.100	ppbv	EPA TO-15L
Chloroform	0.310		0.100	ppbv	EPA TO-15L
Cyclohexane	0.220		0.100	ppbv	EPA TO-15L
Dichlorodifluoromethane (Freon12)	0.740		0.100	ppbv	EPA TO-15L
Ethanol	85.7	E	0.500	ppbv	EPA TO-15L
Ethyl acetate	3.30		0.100	ppbv	EPA TO-15L
Ethylbenzene	0.110		0.100	ppbv	EPA TO-15L
Hexane	3.52		0.500	ppbv	EPA TO-15L
Isopropyl alcohol	0.980		0.500	ppbv	EPA TO-15L
m,p-Xylene	0.600		0.200	ppbv	EPA TO-15L
Methylene chloride	0.580	B	0.100	ppbv	EPA TO-15L
o-Xylene	0.220		0.100	ppbv	EPA TO-15L
Tetrahydrofuran	0.300		0.100	ppbv	EPA TO-15L
Toluene	0.570		0.100	ppbv	EPA TO-15L
Trichlorofluoromethane (Freon 11)	0.390		0.100	ppbv	EPA TO-15L

Lab ID: SC12142-03RE1 **Client ID:** IA-Floor 2A

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Acetone	13.4	D	10.0	ppbv	EPA TO-15L
Ethanol	138	D	10.0	ppbv	EPA TO-15L

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-Basement A	08-223948.00	Indoor/ Ambient Air	03-Sep-15 09:21	08-Sep-15
SC12142-01				

Air Quality Analyses

Volatile Organics in Air Low Level — ppbv — Prepared 16-Sep-15, Dilution: 1 — Can pressure: -4, Can ID: 4626

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.100	0.100	< 0.17	0.17		EPA TO-15L	16-Sep-15	BRF	1517637	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.700**	0.100	**3.46**	0.49		"	"	"	"	X
74-87-3	Chloromethane	< 0.100	0.100	< 0.21	0.21		"	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100	0.100	< 0.70	0.70		"	"	"	"	X
75-01-4	Vinyl chloride	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
106-99-0	1,3-Butadiene	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
74-83-9	Bromomethane	< 0.100	0.100	< 0.39	0.39		"	"	"	"	X
75-00-3	Chloroethane	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
67-64-1	Acetone	**9.99**	0.500	**23.74**	1.19		"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	**0.380**	0.100	**2.14**	0.56		"	"	"	"	X
64-17-5	Ethanol	**26.0**	0.500	**49.02**	0.94	E	"	"	"	"	
107-13-1	Acrylonitrile	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-09-2	Methylene chloride	**1.25**	0.100	**4.34**	0.35	B	"	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	**0.150**	0.100	**1.15**	0.77		"	"	"	"	X
75-15-0	Carbon disulfide	**0.700**	0.500	**2.18**	1.56		"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.100	0.100	< 0.36	0.36		"	"	"	"	X
67-63-0	Isopropyl alcohol	**1.20**	0.500	**2.94**	1.23		"	"	"	"	X
78-93-3	2-Butanone (MEK)	**0.840**	0.100	**2.48**	0.29		"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
110-54-3	Hexane	**7.32**	0.500	**25.81**	1.76		"	"	"	"	X
141-78-6	Ethyl acetate	**6.88**	0.100	**24.79**	0.36		"	"	"	"	
67-66-3	Chloroform	**2.33**	0.100	**11.34**	0.49		"	"	"	"	X
109-99-9	Tetrahydrofuran	**1.52**	0.100	**4.48**	0.29		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	**0.410**	0.100	**2.24**	0.55		"	"	"	"	X
71-43-2	Benzene	**0.260**	0.100	**0.83**	0.32		"	"	"	"	X
56-23-5	Carbon tetrachloride	**0.170**	0.100	**1.07**	0.63		"	"	"	"	X
110-82-7	Cyclohexane	**2.07**	0.100	**7.13**	0.34		"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.100	0.100	< 0.67	0.67		"	"	"	"	X
79-01-6	Trichloroethene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	X
123-91-1	1,4-Dioxane	< 0.500	0.500	< 1.80	1.80		"	"	"	"	X
142-82-5	n-Heptane	< 0.100	0.100	< 0.41	0.41		"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	**0.320**	0.100	**1.31**	0.41		"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
108-88-3	Toluene	**1.25**	0.100	**4.70**	0.38		"	"	"	"	X
591-78-6	2-Hexanone (MBK)	**0.310**	0.100	**1.27**	0.41		"	"	"	"	
124-48-1	Dibromochloromethane	< 0.100	0.100	< 0.85	0.85		"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.100	0.100	< 0.77	0.77		"	"	"	"	

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-Basement A	08-223948.00	Indoor/ Ambient Air	03-Sep-15 09:21	08-Sep-15
SC12142-01				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air Low Level		ppbv	Prepared 16-Sep-15 Dilution: 1				Can pressure: -4 Can ID: 4626				
127-18-4	Tetrachloroethene	< 0.100	0.100	< 0.68	0.68		EPA TO-15L	16-Sep-15	BRF	1517637	X
108-90-7	Chlorobenzene	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	
100-41-4	Ethylbenzene	**0.470**	0.100	**2.04**	0.43		"	"	"	"	X
179601-23-1	m,p-Xylene	**5.45**	0.200	**23.63**	0.87		"	"	"	"	X
75-25-2	Bromoform	< 0.100	0.100	< 1.03	1.03		"	"	"	"	X
100-42-5	Styrene	< 0.100	0.100	< 0.43	0.43		"	"	"	"	X
95-47-6	o-Xylene	**1.99**	0.100	**8.63**	0.43		"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	X
98-82-8	Isopropylbenzene	**0.330**	0.100	**1.62**	0.49		"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**1.86**	0.100	**9.14**	0.49		"	"	"	"	X
622-96-8	4-Ethyltoluene	**1.82**	0.100	**8.95**	0.49		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**4.92**	0.100	**24.19**	0.49		"	"	"	"	X
91-20-3	Naphthalene	< 0.500	0.500	< 2.62	2.62		"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
100-44-7	Benzyl chloride	< 0.100	0.100	< 0.52	0.52		"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
104-51-8	n-Butylbenzene	**0.290**	0.100	**1.59**	0.55		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	**0.120**	0.100	**0.89**	0.74		"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.100	0.100	< 1.07	1.07		"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*112*		*70-130 %*			"	"	"	"	
Re-analysis of Volatile Organics in Air Low Level			Dilution: 10			GS1					
64-17-5	Ethanol	**19.9**	5.00	**37.52**	9.43	D	EPA TO-15L	18-Sep-15	BRF	1517798	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*102*		*70-130 %*			"	"	"	"	

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-Floor 1A	08-223948.00	Indoor/ Ambient Air	03-Sep-15 09:13	08-Sep-15
SC12142-02				

Air Quality Analyses

Volatile Organics in Air Low Level — ppbv — Prepared 16-Sep-15 — Dilution: 1 — Can pressure: -2 — Can ID: 1005

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.100	0.100	< 0.17	0.17		EPA TO-15L	16-Sep-15	BRF	1517637	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.800**	0.100	**3.96**	0.49		"	"	"	"	X
74-87-3	Chloromethane	< 0.100	0.100	< 0.21	0.21		"	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100	0.100	< 0.70	0.70		"	"	"	"	X
75-01-4	Vinyl chloride	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
106-99-0	1,3-Butadiene	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
74-83-9	Bromomethane	< 0.100	0.100	< 0.39	0.39		"	"	"	"	X
75-00-3	Chloroethane	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
67-64-1	Acetone	**9.72**	0.500	**23.10**	1.19		"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	**0.310**	0.100	**1.74**	0.56		"	"	"	"	X
64-17-5	Ethanol	**92.6**	0.500	**174.60**	0.94	E	"	"	"	"	
107-13-1	Acrylonitrile	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-09-2	Methylene chloride	**1.04**	0.100	**3.61**	0.35	B	"	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	**0.110**	0.100	**0.84**	0.77		"	"	"	"	X
75-15-0	Carbon disulfide	< 0.500	0.500	< 1.56	1.56		"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.100	0.100	< 0.36	0.36		"	"	"	"	X
67-63-0	Isopropyl alcohol	**1.68**	0.500	**4.12**	1.23		"	"	"	"	X
78-93-3	2-Butanone (MEK)	**1.39**	0.100	**4.10**	0.29		"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
110-54-3	Hexane	**1.79**	0.500	**6.31**	1.76		"	"	"	"	X
141-78-6	Ethyl acetate	**33.6**	0.100	**121.07**	0.36	E	"	"	"	"	
67-66-3	Chloroform	**0.390**	0.100	**1.90**	0.49		"	"	"	"	X
109-99-9	Tetrahydrofuran	**0.370**	0.100	**1.09**	0.29		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	**0.150**	0.100	**0.82**	0.55		"	"	"	"	X
71-43-2	Benzene	**0.440**	0.100	**1.40**	0.32		"	"	"	"	X
56-23-5	Carbon tetrachloride	**0.140**	0.100	**0.88**	0.63		"	"	"	"	X
110-82-7	Cyclohexane	**0.680**	0.100	**2.34**	0.34		"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.100	0.100	< 0.67	0.67		"	"	"	"	X
79-01-6	Trichloroethene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	X
123-91-1	1,4-Dioxane	< 0.500	0.500	< 1.80	1.80		"	"	"	"	X
142-82-5	n-Heptane	**0.100**	0.100	**0.41**	0.41		"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	**0.150**	0.100	**0.61**	0.41		"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
108-88-3	Toluene	**2.09**	0.100	**7.86**	0.38		"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.100	0.100	< 0.41	0.41		"	"	"	"	
124-48-1	Dibromochloromethane	< 0.100	0.100	< 0.85	0.85		"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.100	0.100	< 0.77	0.77		"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-Floor 1A	08-223948.00	Indoor/ Ambient Air	03-Sep-15 09:13	08-Sep-15
SC12142-02				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air Low Level		ppbv	Prepared 16-Sep-15 Dilution: 1					Can pressure: -2 Can ID: 1005			
127-18-4	Tetrachloroethene	< 0.100	0.100	< 0.68	0.68		EPA TO-15L	16-Sep-15	BRF	1517637	X
108-90-7	Chlorobenzene	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	
100-41-4	Ethylbenzene	**0.160**	0.100	**0.69**	0.43		"	"	"	"	X
179601-23-1	m,p-Xylene	**0.830**	0.200	**3.60**	0.87		"	"	"	"	X
75-25-2	Bromoform	< 0.100	0.100	< 1.03	1.03		"	"	"	"	X
100-42-5	Styrene	< 0.100	0.100	< 0.43	0.43		"	"	"	"	X
95-47-6	o-Xylene	**0.340**	0.100	**1.47**	0.43		"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	X
98-82-8	Isopropylbenzene	< 0.100	0.100	< 0.49	0.49		"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**0.210**	0.100	**1.03**	0.49		"	"	"	"	X
622-96-8	4-Ethyltoluene	**0.210**	0.100	**1.03**	0.49		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**0.580**	0.100	**2.85**	0.49		"	"	"	"	X
91-20-3	Naphthalene	< 0.500	0.500	< 2.62	2.62		"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
100-44-7	Benzyl chloride	< 0.100	0.100	< 0.52	0.52		"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
99-87-6	4-Isopropyltoluene	**0.170**	0.100	**0.91**	0.54		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
104-51-8	n-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.100	0.100	< 0.74	0.74		"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.100	0.100	< 1.07	1.07		"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*103*		*70-130 %*			"	"	"	"	
Re-analysis of Volatile Organics in Air Low Level			Dilution: 20			GS1					
64-17-5	Ethanol	**187**	10.0	**352.58**	18.85	D	EPA TO-15L	17-Sep-15	BRF	1517726	
141-78-6	Ethyl acetate	**26.4**	2.00	**95.13**	7.21	D	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*101*		*70-130 %*			"	"	"	"	

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-Floor 2A	08-223948.00	Indoor/ Ambient Air	03-Sep-15 09:11	08-Sep-15
SC12142-03				

Air Quality Analyses

Volatile Organics in Air Low Level — ppbv — Prepared 16-Sep-15 — Dilution: 1 — Can pressure: -2 — Can ID: 1365

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.100	0.100	< 0.17	0.17		EPA TO-15L	16-Sep-15	BRF	1517637	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.740**	0.100	**3.66**	0.49		"	"	"	"	X
74-87-3	Chloromethane	< 0.100	0.100	< 0.21	0.21		"	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100	0.100	< 0.70	0.70		"	"	"	"	X
75-01-4	Vinyl chloride	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
106-99-0	1,3-Butadiene	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
74-83-9	Bromomethane	< 0.100	0.100	< 0.39	0.39		"	"	"	"	X
75-00-3	Chloroethane	< 0.100	0.100	< 0.26	0.26		"	"	"	"	X
67-64-1	Acetone	**11.6**	0.500	**27.56**	1.19	E	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	**0.390**	0.100	**2.19**	0.56		"	"	"	"	X
64-17-5	Ethanol	**85.7**	0.500	**161.59**	0.94	E	"	"	"	"	
107-13-1	Acrylonitrile	< 0.100	0.100	< 0.22	0.22		"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-09-2	Methylene chloride	**0.580**	0.100	**2.01**	0.35	B	"	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	**0.130**	0.100	**1.00**	0.77		"	"	"	"	X
75-15-0	Carbon disulfide	**1.73**	0.500	**5.38**	1.56		"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.100	0.100	< 0.36	0.36		"	"	"	"	X
67-63-0	Isopropyl alcohol	**0.980**	0.500	**2.40**	1.23		"	"	"	"	X
78-93-3	2-Butanone (MEK)	**1.83**	0.100	**5.40**	0.29		"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
110-54-3	Hexane	**3.52**	0.500	**12.41**	1.76		"	"	"	"	X
141-78-6	Ethyl acetate	**3.30**	0.100	**11.89**	0.36		"	"	"	"	
67-66-3	Chloroform	**0.310**	0.100	**1.51**	0.49		"	"	"	"	X
109-99-9	Tetrahydrofuran	**0.300**	0.100	**0.88**	0.29		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.100	0.100	< 0.40	0.40		"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
71-43-2	Benzene	**0.260**	0.100	**0.83**	0.32		"	"	"	"	X
56-23-5	Carbon tetrachloride	**0.160**	0.100	**1.01**	0.63		"	"	"	"	X
110-82-7	Cyclohexane	**0.220**	0.100	**0.76**	0.34		"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.100	0.100	< 0.67	0.67		"	"	"	"	X
79-01-6	Trichloroethene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	X
123-91-1	1,4-Dioxane	< 0.500	0.500	< 1.80	1.80		"	"	"	"	X
142-82-5	n-Heptane	< 0.100	0.100	< 0.41	0.41		"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.100	0.100	< 0.41	0.41		"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.100	0.100	< 0.45	0.45		"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.100	0.100	< 0.55	0.55		"	"	"	"	X
108-88-3	Toluene	**0.570**	0.100	**2.14**	0.38		"	"	"	"	X
591-78-6	2-Hexanone (MBK)	**0.110**	0.100	**0.45**	0.41		"	"	"	"	
124-48-1	Dibromochloromethane	< 0.100	0.100	< 0.85	0.85		"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.100	0.100	< 0.77	0.77		"	"	"	"	

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-Floor 2A	08-223948.00	Indoor/ Ambient Air	03-Sep-15 09:11	08-Sep-15
SC12142-03				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air Low Level		ppbv	Prepared 16-Sep-15 Dilution: 1					Can pressure: -2 Can ID: 1365			
127-18-4	Tetrachloroethene	< 0.100	0.100	< 0.68	0.68		EPA TO-15L	16-Sep-15	BRF	1517637	X
108-90-7	Chlorobenzene	< 0.100	0.100	< 0.46	0.46		"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	
100-41-4	Ethylbenzene	**0.110**	0.100	**0.48**	0.43		"	"	"	"	X
179601-23-1	m,p-Xylene	**0.600**	0.200	**2.60**	0.87		"	"	"	"	X
75-25-2	Bromoform	< 0.100	0.100	< 1.03	1.03		"	"	"	"	X
100-42-5	Styrene	< 0.100	0.100	< 0.43	0.43		"	"	"	"	X
95-47-6	o-Xylene	**0.220**	0.100	**0.95**	0.43		"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.100	0.100	< 0.69	0.69		"	"	"	"	X
98-82-8	Isopropylbenzene	< 0.100	0.100	< 0.49	0.49		"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**0.160**	0.100	**0.79**	0.49		"	"	"	"	X
622-96-8	4-Ethyltoluene	**0.160**	0.100	**0.79**	0.49		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**0.480**	0.100	**2.36**	0.49		"	"	"	"	X
91-20-3	Naphthalene	< 0.500	0.500	< 2.62	2.62		"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
100-44-7	Benzyl chloride	< 0.100	0.100	< 0.52	0.52		"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.100	0.100	< 0.54	0.54		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.100	0.100	< 0.60	0.60		"	"	"	"	X
104-51-8	n-Butylbenzene	< 0.100	0.100	< 0.55	0.55		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.100	0.100	< 0.74	0.74		"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.100	0.100	< 1.07	1.07		"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*108*		*70-130 %*			"	"	"	"	
Re-analysis of Volatile Organics in Air Low Level			Dilution: 20			GS1					
67-64-1	Acetone	**13.4**	10.0	**31.84**	23.76	D	EPA TO-15L	17-Sep-15	BRF	1517726	X
64-17-5	Ethanol	**138**	10.0	**260.20**	18.85	D	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*100*		*70-130 %*			"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517637 - General Air Prep										
Blank (1517637-BLK1)					Prepared & Analyzed: 16-Sep-15					
Propene	< 0.100		ppbv	0.100						
Dichlorodifluoromethane (Freon12)	< 0.100		ppbv	0.100						
Chloromethane	< 0.100		ppbv	0.100						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100		ppbv	0.100						
Vinyl chloride	< 0.100		ppbv	0.100						
1,3-Butadiene	< 0.100		ppbv	0.100						
Bromomethane	< 0.100		ppbv	0.100						
Chloroethane	< 0.100		ppbv	0.100						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.100		ppbv	0.100						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.100		ppbv	0.100						
1,1-Dichloroethene	< 0.100		ppbv	0.100						
Methylene chloride	**0.300**	B, O01	ppbv	0.100						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.100		ppbv	0.100						
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.100		ppbv	0.100						
1,1-Dichloroethane	< 0.100		ppbv	0.100						
Methyl tert-butyl ether	< 0.100		ppbv	0.100						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.100		ppbv	0.100						
cis-1,2-Dichloroethene	< 0.100		ppbv	0.100						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.100		ppbv	0.100						
Chloroform	< 0.100		ppbv	0.100						
Tetrahydrofuran	< 0.100		ppbv	0.100						
1,2-Dichloroethane	< 0.100		ppbv	0.100						
1,1,1-Trichloroethane	< 0.100		ppbv	0.100						
Benzene	< 0.100		ppbv	0.100						
Carbon tetrachloride	< 0.100		ppbv	0.100						
Cyclohexane	< 0.100		ppbv	0.100						
1,2-Dichloropropane	< 0.100		ppbv	0.100						
Bromodichloromethane	< 0.100		ppbv	0.100						
Trichloroethene	< 0.100		ppbv	0.100						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.100		ppbv	0.100						
4-Methyl-2-pentanone (MIBK)	< 0.100		ppbv	0.100						
cis-1,3-Dichloropropene	< 0.100		ppbv	0.100						
trans-1,3-Dichloropropene	< 0.100		ppbv	0.100						
1,1,2-Trichloroethane	< 0.100		ppbv	0.100						
Toluene	< 0.100		ppbv	0.100						
2-Hexanone (MBK)	< 0.100		ppbv	0.100						
Dibromochloromethane	< 0.100		ppbv	0.100						
1,2-Dibromoethane (EDB)	< 0.100		ppbv	0.100						
Tetrachloroethene	< 0.100		ppbv	0.100						
Chlorobenzene	< 0.100		ppbv	0.100						
1,1,1,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Ethylbenzene	< 0.100		ppbv	0.100						
m,p-Xylene	< 0.200		ppbv	0.200						
Bromoform	< 0.100		ppbv	0.100						
Styrene	< 0.100		ppbv	0.100						
o-Xylene	< 0.100		ppbv	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517637 - General Air Prep										
Blank (1517637-BLK1)					Prepared & Analyzed: 16-Sep-15					
1,1,2,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Isopropylbenzene	< 0.100		ppbv	0.100						
1,3,5-Trimethylbenzene	< 0.100		ppbv	0.100						
4-Ethyltoluene	< 0.100		ppbv	0.100						
1,2,4-Trimethylbenzene	< 0.100		ppbv	0.100						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.100		ppbv	0.100						
Benzyl chloride	< 0.100		ppbv	0.100						
1,4-Dichlorobenzene	< 0.100		ppbv	0.100						
sec-Butylbenzene	< 0.100		ppbv	0.100						
4-Isopropyltoluene	< 0.100		ppbv	0.100						
1,2-Dichlorobenzene	< 0.100		ppbv	0.100						
n-Butylbenzene	< 0.100		ppbv	0.100						
1,2,4-Trichlorobenzene	< 0.100		ppbv	0.100						
Hexachlorobutadiene	< 0.100		ppbv	0.100						
Surrogate: 4-Bromofluorobenzene	*10.4*		ppbv		*10.0*		*104*	*70-130*		
LCS (1517637-BS1)					Prepared & Analyzed: 16-Sep-15					
Propene	**1.73**		ppbv		2.00		86	70-130		
Dichlorodifluoromethane (Freon12)	**1.86**		ppbv		2.00		93	70-130		
Chloromethane	**1.66**		ppbv		2.00		83	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**1.72**		ppbv		2.00		86	70-130		
Vinyl chloride	**1.78**		ppbv		2.00		89	70-130		
1,3-Butadiene	**1.81**		ppbv		2.00		90	70-130		
Bromomethane	**1.73**		ppbv		2.00		86	70-130		
Chloroethane	**1.81**		ppbv		2.00		90	70-130		
Acetone	**2.11**		ppbv		2.00		106	70-130		
Trichlorofluoromethane (Freon 11)	**1.94**		ppbv		2.00		97	70-130		
Ethanol	**1.96**		ppbv		2.00		98	70-130		
Acrylonitrile	**1.68**		ppbv		2.00		84	50-150		
1,1-Dichloroethene	**1.84**		ppbv		2.00		92	70-130		
Methylene chloride	**1.84**	B	ppbv		2.00		92	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**1.87**		ppbv		2.00		94	70-130		
Carbon disulfide	**2.58**		ppbv		2.00		129	70-130		
trans-1,2-Dichloroethene	**1.86**		ppbv		2.00		93	70-130		
1,1-Dichloroethane	**1.87**		ppbv		2.00		94	70-130		
Methyl tert-butyl ether	**1.87**		ppbv		2.00		94	70-130		
Isopropyl alcohol	**1.70**		ppbv		2.00		85	70-130		
2-Butanone (MEK)	**1.91**		ppbv		2.00		96	70-130		
cis-1,2-Dichloroethene	**1.83**		ppbv		2.00		92	70-130		
Hexane	**1.77**		ppbv		2.00		88	70-130		
Ethyl acetate	**1.70**		ppbv		2.00		85	70-130		
Chloroform	**1.90**		ppbv		2.00		95	70-130		
Tetrahydrofuran	**1.80**		ppbv		2.00		90	70-130		
1,2-Dichloroethane	**1.83**		ppbv		2.00		92	70-130		
1,1,1-Trichloroethane	**1.93**		ppbv		2.00		96	70-130		
Benzene	**1.72**		ppbv		2.00		86	70-130		
Carbon tetrachloride	**1.96**		ppbv		2.00		98	70-130		
Cyclohexane	**1.74**		ppbv		2.00		87	70-130		
1,2-Dichloropropane	**1.85**		ppbv		2.00		92	70-130		
Bromodichloromethane	**1.99**		ppbv		2.00		100	70-130		
Trichloroethene	**1.92**		ppbv		2.00		96	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517637 - General Air Prep										
LCS (1517637-BS1)					Prepared & Analyzed: 16-Sep-15					
1,4-Dioxane	**1.88**		ppbv		2.00		94	50-150		
n-Heptane	**1.90**		ppbv		2.00		95	70-130		
4-Methyl-2-pentanone (MIBK)	**2.15**		ppbv		2.00		108	70-130		
cis-1,3-Dichloropropene	**1.95**		ppbv		2.00		98	70-130		
trans-1,3-Dichloropropene	**1.98**		ppbv		2.00		99	70-130		
1,1,2-Trichloroethane	**1.91**		ppbv		2.00		96	70-130		
Toluene	**1.90**		ppbv		2.00		95	70-130		
2-Hexanone (MBK)	**1.87**		ppbv		2.00		94	70-130		
Dibromochloromethane	**2.04**		ppbv		2.00		102	70-130		
1,2-Dibromoethane (EDB)	**1.98**		ppbv		2.00		99	70-130		
Tetrachloroethene	**1.99**		ppbv		2.00		100	70-130		
Chlorobenzene	**1.85**		ppbv		2.00		92	70-130		
1,1,1,2-Tetrachloroethane	**1.96**		ppbv		2.00		98	50-150		
Ethylbenzene	**1.80**		ppbv		2.00		90	70-130		
m,p-Xylene	**3.85**		ppbv		4.00		96	70-130		
Bromoform	**2.09**		ppbv		2.00		104	70-130		
Styrene	**1.88**		ppbv		2.00		94	70-130		
o-Xylene	**1.89**		ppbv		2.00		94	70-130		
1,1,2,2-Tetrachloroethane	**1.89**		ppbv		2.00		94	70-130		
Isopropylbenzene	**1.91**		ppbv		2.00		96	50-150		
1,3,5-Trimethylbenzene	**1.92**		ppbv		2.00		96	70-130		
4-Ethyltoluene	**1.88**		ppbv		2.00		94	70-130		
1,2,4-Trimethylbenzene	**1.90**		ppbv		2.00		95	70-130		
Naphthalene	**1.83**		ppbv		2.00		92	50-150		
1,3-Dichlorobenzene	**1.91**		ppbv		2.00		96	70-130		
Benzyl chloride	**1.97**		ppbv		2.00		98	70-130		
1,4-Dichlorobenzene	**1.91**		ppbv		2.00		96	70-130		
sec-Butylbenzene	**1.92**		ppbv		2.00		96	50-150		
4-Isopropyltoluene	**1.91**		ppbv		2.00		96	50-150		
1,2-Dichlorobenzene	**1.92**		ppbv		2.00		96	70-130		
n-Butylbenzene	**1.87**		ppbv		2.00		94	50-150		
1,2,4-Trichlorobenzene	**2.01**		ppbv		2.00		100	70-130		
Hexachlorobutadiene	**1.97**		ppbv		2.00		98	70-130		
Surrogate: 4-Bromofluorobenzene	*10.1*		ppbv		*10.0*		*101*	*70-130*		
Batch 1517726 - General Air Prep										
Blank (1517726-BLK1)					Prepared & Analyzed: 17-Sep-15					
Propene	< 0.100		ppbv	0.100						
Dichlorodifluoromethane (Freon12)	< 0.100		ppbv	0.100						
Chloromethane	< 0.100		ppbv	0.100						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100		ppbv	0.100						
Vinyl chloride	< 0.100		ppbv	0.100						
1,3-Butadiene	< 0.100		ppbv	0.100						
Bromomethane	< 0.100		ppbv	0.100						
Chloroethane	< 0.100		ppbv	0.100						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.100		ppbv	0.100						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.100		ppbv	0.100						
1,1-Dichloroethene	< 0.100		ppbv	0.100						
Methylene chloride	**0.290**	B, O01	ppbv	0.100						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.100		ppbv	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517726 - General Air Prep										
Blank (1517726-BLK1)					Prepared & Analyzed: 17-Sep-15					
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.100		ppbv	0.100						
1,1-Dichloroethane	< 0.100		ppbv	0.100						
Methyl tert-butyl ether	< 0.100		ppbv	0.100						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.100		ppbv	0.100						
cis-1,2-Dichloroethene	< 0.100		ppbv	0.100						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.100		ppbv	0.100						
Chloroform	< 0.100		ppbv	0.100						
Tetrahydrofuran	< 0.100		ppbv	0.100						
1,2-Dichloroethane	< 0.100		ppbv	0.100						
1,1,1-Trichloroethane	< 0.100		ppbv	0.100						
Benzene	< 0.100		ppbv	0.100						
Carbon tetrachloride	< 0.100		ppbv	0.100						
Cyclohexane	< 0.100		ppbv	0.100						
1,2-Dichloropropane	< 0.100		ppbv	0.100						
Bromodichloromethane	< 0.100		ppbv	0.100						
Trichloroethene	< 0.100		ppbv	0.100						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.100		ppbv	0.100						
4-Methyl-2-pentanone (MIBK)	< 0.100		ppbv	0.100						
cis-1,3-Dichloropropene	< 0.100		ppbv	0.100						
trans-1,3-Dichloropropene	< 0.100		ppbv	0.100						
1,1,2-Trichloroethane	< 0.100		ppbv	0.100						
Toluene	< 0.100		ppbv	0.100						
2-Hexanone (MBK)	< 0.100		ppbv	0.100						
Dibromochloromethane	< 0.100		ppbv	0.100						
1,2-Dibromoethane (EDB)	< 0.100		ppbv	0.100						
Tetrachloroethene	< 0.100		ppbv	0.100						
Chlorobenzene	< 0.100		ppbv	0.100						
1,1,1,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Ethylbenzene	< 0.100		ppbv	0.100						
m,p-Xylene	< 0.200		ppbv	0.200						
Bromoform	< 0.100		ppbv	0.100						
Styrene	< 0.100		ppbv	0.100						
o-Xylene	< 0.100		ppbv	0.100						
1,1,2,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Isopropylbenzene	< 0.100		ppbv	0.100						
1,3,5-Trimethylbenzene	< 0.100		ppbv	0.100						
4-Ethyltoluene	< 0.100		ppbv	0.100						
1,2,4-Trimethylbenzene	< 0.100		ppbv	0.100						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.100		ppbv	0.100						
Benzyl chloride	< 0.100		ppbv	0.100						
1,4-Dichlorobenzene	< 0.100		ppbv	0.100						
sec-Butylbenzene	< 0.100		ppbv	0.100						
4-Isopropyltoluene	< 0.100		ppbv	0.100						
1,2-Dichlorobenzene	< 0.100		ppbv	0.100						
n-Butylbenzene	< 0.100		ppbv	0.100						
1,2,4-Trichlorobenzene	< 0.100		ppbv	0.100						
Hexachlorobutadiene	< 0.100		ppbv	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517726 - General Air Prep										
Blank (1517726-BLK1)						Prepared & Analyzed: 17-Sep-15				
Surrogate: 4-Bromofluorobenzene	*10.7*		ppbv		*10.0*		*107*	*70-130*		
LCS (1517726-BS1)						Prepared & Analyzed: 17-Sep-15				
Propene	**1.67**		ppbv		2.00		84	70-130		
Dichlorodifluoromethane (Freon12)	**1.94**		ppbv		2.00		97	70-130		
Chloromethane	**1.67**		ppbv		2.00		84	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**1.86**		ppbv		2.00		93	70-130		
Vinyl chloride	**1.83**		ppbv		2.00		92	70-130		
1,3-Butadiene	**1.98**		ppbv		2.00		99	70-130		
Bromomethane	**1.59**		ppbv		2.00		80	70-130		
Chloroethane	**1.77**		ppbv		2.00		88	70-130		
Acetone	**2.25**		ppbv		2.00		112	70-130		
Trichlorofluoromethane (Freon 11)	**2.12**		ppbv		2.00		106	70-130		
Ethanol	**2.41**		ppbv		2.00		120	70-130		
Acrylonitrile	**1.64**		ppbv		2.00		82	50-150		
1,1-Dichloroethene	**2.06**		ppbv		2.00		103	70-130		
Methylene chloride	**1.97**	B	ppbv		2.00		98	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**2.07**		ppbv		2.00		104	70-130		
Carbon disulfide	**1.59**		ppbv		2.00		80	70-130		
trans-1,2-Dichloroethene	**2.02**		ppbv		2.00		101	70-130		
1,1-Dichloroethane	**2.00**		ppbv		2.00		100	70-130		
Methyl tert-butyl ether	**1.99**		ppbv		2.00		100	70-130		
Isopropyl alcohol	**1.82**		ppbv		2.00		91	70-130		
2-Butanone (MEK)	**2.05**		ppbv		2.00		102	70-130		
cis-1,2-Dichloroethene	**2.03**		ppbv		2.00		102	70-130		
Hexane	**1.95**		ppbv		2.00		98	70-130		
Ethyl acetate	**1.89**		ppbv		2.00		94	70-130		
Chloroform	**2.03**		ppbv		2.00		102	70-130		
Tetrahydrofuran	**1.85**		ppbv		2.00		92	70-130		
1,2-Dichloroethane	**2.02**		ppbv		2.00		101	70-130		
1,1,1-Trichloroethane	**2.05**		ppbv		2.00		102	70-130		
Benzene	**1.94**		ppbv		2.00		97	70-130		
Carbon tetrachloride	**2.10**		ppbv		2.00		105	70-130		
Cyclohexane	**1.87**		ppbv		2.00		94	70-130		
1,2-Dichloropropane	**1.89**		ppbv		2.00		94	70-130		
Bromodichloromethane	**2.02**		ppbv		2.00		101	70-130		
Trichloroethene	**2.00**		ppbv		2.00		100	70-130		
1,4-Dioxane	**1.92**		ppbv		2.00		96	50-150		
n-Heptane	**1.74**		ppbv		2.00		87	70-130		
4-Methyl-2-pentanone (MIBK)	**1.75**		ppbv		2.00		88	70-130		
cis-1,3-Dichloropropene	**2.02**		ppbv		2.00		101	70-130		
trans-1,3-Dichloropropene	**2.01**		ppbv		2.00		100	70-130		
1,1,2-Trichloroethane	**2.02**		ppbv		2.00		101	70-130		
Toluene	**2.02**		ppbv		2.00		101	70-130		
2-Hexanone (MBK)	**1.92**		ppbv		2.00		96	70-130		
Dibromochloromethane	**2.07**		ppbv		2.00		104	70-130		
1,2-Dibromoethane (EDB)	**2.11**		ppbv		2.00		106	70-130		
Tetrachloroethene	**2.13**		ppbv		2.00		106	70-130		
Chlorobenzene	**1.91**		ppbv		2.00		96	70-130		
1,1,1,2-Tetrachloroethane	**1.91**		ppbv		2.00		96	50-150		
Ethylbenzene	**1.89**		ppbv		2.00		94	70-130		
m,p-Xylene	**3.95**		ppbv		4.00		99	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517726 - General Air Prep										
LCS (1517726-BS1)					Prepared & Analyzed: 17-Sep-15					
Bromoform	**2.09**		ppbv		2.00		104	70-130		
Styrene	**1.94**		ppbv		2.00		97	70-130		
o-Xylene	**1.97**		ppbv		2.00		98	70-130		
1,1,2,2-Tetrachloroethane	**1.95**		ppbv		2.00		98	70-130		
Isopropylbenzene	**1.94**		ppbv		2.00		97	50-150		
1,3,5-Trimethylbenzene	**1.93**		ppbv		2.00		96	70-130		
4-Ethyltoluene	**1.98**		ppbv		2.00		99	70-130		
1,2,4-Trimethylbenzene	**1.93**		ppbv		2.00		96	70-130		
Naphthalene	**1.84**		ppbv		2.00		92	50-150		
1,3-Dichlorobenzene	**1.99**		ppbv		2.00		100	70-130		
Benzyl chloride	**1.85**		ppbv		2.00		92	70-130		
1,4-Dichlorobenzene	**2.00**		ppbv		2.00		100	70-130		
sec-Butylbenzene	**1.95**		ppbv		2.00		98	50-150		
4-Isopropyltoluene	**1.98**		ppbv		2.00		99	50-150		
1,2-Dichlorobenzene	**1.98**		ppbv		2.00		99	70-130		
n-Butylbenzene	**1.92**		ppbv		2.00		96	50-150		
1,2,4-Trichlorobenzene	**2.02**		ppbv		2.00		101	70-130		
Hexachlorobutadiene	**2.00**		ppbv		2.00		100	70-130		
Surrogate: 4-Bromofluorobenzene	*10.1*		ppbv		*10.0*		*101*	*70-130*		
Batch 1517798 - General Air Prep										
Blank (1517798-BLK1)					Prepared & Analyzed: 18-Sep-15					
Propene	< 0.100		ppbv	0.100						
Dichlorodifluoromethane (Freon12)	< 0.100		ppbv	0.100						
Chloromethane	< 0.100		ppbv	0.100						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.100		ppbv	0.100						
Vinyl chloride	< 0.100		ppbv	0.100						
1,3-Butadiene	< 0.100		ppbv	0.100						
Bromomethane	< 0.100		ppbv	0.100						
Chloroethane	< 0.100		ppbv	0.100						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.100		ppbv	0.100						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.100		ppbv	0.100						
1,1-Dichloroethene	< 0.100		ppbv	0.100						
Methylene chloride	**0.270**	O01	ppbv	0.100						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.100		ppbv	0.100						
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.100		ppbv	0.100						
1,1-Dichloroethane	< 0.100		ppbv	0.100						
Methyl tert-butyl ether	< 0.100		ppbv	0.100						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.100		ppbv	0.100						
cis-1,2-Dichloroethene	< 0.100		ppbv	0.100						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.100		ppbv	0.100						
Chloroform	< 0.100		ppbv	0.100						
Tetrahydrofuran	< 0.100		ppbv	0.100						
1,2-Dichloroethane	< 0.100		ppbv	0.100						
1,1,1-Trichloroethane	< 0.100		ppbv	0.100						
Benzene	< 0.100		ppbv	0.100						
Carbon tetrachloride	< 0.100		ppbv	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517798 - General Air Prep										
Blank (1517798-BLK1)					Prepared & Analyzed: 18-Sep-15					
Cyclohexane	< 0.100		ppbv	0.100						
1,2-Dichloropropane	< 0.100		ppbv	0.100						
Bromodichloromethane	< 0.100		ppbv	0.100						
Trichloroethene	< 0.100		ppbv	0.100						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.100		ppbv	0.100						
4-Methyl-2-pentanone (MIBK)	< 0.100		ppbv	0.100						
cis-1,3-Dichloropropene	< 0.100		ppbv	0.100						
trans-1,3-Dichloropropene	< 0.100		ppbv	0.100						
1,1,2-Trichloroethane	< 0.100		ppbv	0.100						
Toluene	< 0.100		ppbv	0.100						
2-Hexanone (MBK)	< 0.100		ppbv	0.100						
Dibromochloromethane	< 0.100		ppbv	0.100						
1,2-Dibromoethane (EDB)	< 0.100		ppbv	0.100						
Tetrachloroethene	< 0.100		ppbv	0.100						
Chlorobenzene	< 0.100		ppbv	0.100						
1,1,1,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Ethylbenzene	< 0.100		ppbv	0.100						
m,p-Xylene	< 0.200		ppbv	0.200						
Bromoform	< 0.100		ppbv	0.100						
Styrene	< 0.100		ppbv	0.100						
o-Xylene	< 0.100		ppbv	0.100						
1,1,2,2-Tetrachloroethane	< 0.100		ppbv	0.100						
Isopropylbenzene	< 0.100		ppbv	0.100						
1,3,5-Trimethylbenzene	< 0.100		ppbv	0.100						
4-Ethyltoluene	< 0.100		ppbv	0.100						
1,2,4-Trimethylbenzene	< 0.100		ppbv	0.100						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.100		ppbv	0.100						
Benzyl chloride	< 0.100		ppbv	0.100						
1,4-Dichlorobenzene	< 0.100		ppbv	0.100						
sec-Butylbenzene	< 0.100		ppbv	0.100						
4-Isopropyltoluene	< 0.100		ppbv	0.100						
1,2-Dichlorobenzene	< 0.100		ppbv	0.100						
n-Butylbenzene	< 0.100		ppbv	0.100						
1,2,4-Trichlorobenzene	< 0.100		ppbv	0.100						
Hexachlorobutadiene	< 0.100		ppbv	0.100						
Surrogate: 4-Bromofluorobenzene	*10.8*		ppbv		*10.0*		*108*	*70-130*		
LCS (1517798-BS1)					Prepared & Analyzed: 18-Sep-15					
Propene	**1.56**		ppbv		2.00		78	70-130		
Dichlorodifluoromethane (Freon12)	**1.99**		ppbv		2.00		100	70-130		
Chloromethane	**1.86**		ppbv		2.00		93	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**1.95**		ppbv		2.00		98	70-130		
Vinyl chloride	**1.82**		ppbv		2.00		91	70-130		
1,3-Butadiene	**2.02**		ppbv		2.00		101	70-130		
Bromomethane	**1.79**		ppbv		2.00		90	70-130		
Chloroethane	**1.65**		ppbv		2.00		82	70-130		
Acetone	**2.04**		ppbv		2.00		102	70-130		
Trichlorofluoromethane (Freon 11)	**2.23**		ppbv		2.00		112	70-130		
Ethanol	**2.21**		ppbv		2.00		110	70-130		
Acrylonitrile	**1.78**		ppbv		2.00		89	50-150		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517798 - General Air Prep										
LCS (1517798-BS1)					Prepared & Analyzed: 18-Sep-15					
1,1-Dichloroethene	**2.04**		ppbv		2.00		102	70-130		
Methylene chloride	**1.94**	B	ppbv		2.00		97	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**2.08**		ppbv		2.00		104	70-130		
Carbon disulfide	**1.60**		ppbv		2.00		80	70-130		
trans-1,2-Dichloroethene	**2.01**		ppbv		2.00		100	70-130		
1,1-Dichloroethane	**2.03**		ppbv		2.00		102	70-130		
Methyl tert-butyl ether	**2.05**		ppbv		2.00		102	70-130		
Isopropyl alcohol	**1.51**		ppbv		2.00		76	70-130		
2-Butanone (MEK)	**2.03**		ppbv		2.00		102	70-130		
cis-1,2-Dichloroethene	**2.00**		ppbv		2.00		100	70-130		
Hexane	**1.89**		ppbv		2.00		94	70-130		
Ethyl acetate	**1.66**		ppbv		2.00		83	70-130		
Chloroform	**2.07**		ppbv		2.00		104	70-130		
Tetrahydrofuran	**1.95**		ppbv		2.00		98	70-130		
1,2-Dichloroethane	**2.09**		ppbv		2.00		104	70-130		
1,1,1-Trichloroethane	**2.07**		ppbv		2.00		104	70-130		
Benzene	**1.85**		ppbv		2.00		92	70-130		
Carbon tetrachloride	**2.09**		ppbv		2.00		104	70-130		
Cyclohexane	**1.91**		ppbv		2.00		96	70-130		
1,2-Dichloropropane	**2.04**		ppbv		2.00		102	70-130		
Bromodichloromethane	**2.19**		ppbv		2.00		110	70-130		
Trichloroethene	**2.10**		ppbv		2.00		105	70-130		
1,4-Dioxane	**2.06**		ppbv		2.00		103	50-150		
n-Heptane	**1.81**		ppbv		2.00		90	70-130		
4-Methyl-2-pentanone (MIBK)	**2.01**		ppbv		2.00		100	70-130		
cis-1,3-Dichloropropene	**2.16**		ppbv		2.00		108	70-130		
trans-1,3-Dichloropropene	**2.24**		ppbv		2.00		112	70-130		
1,1,2-Trichloroethane	**2.15**		ppbv		2.00		108	70-130		
Toluene	**2.10**		ppbv		2.00		105	70-130		
2-Hexanone (MBK)	**2.11**		ppbv		2.00		106	70-130		
Dibromochloromethane	**2.26**		ppbv		2.00		113	70-130		
1,2-Dibromoethane (EDB)	**2.26**		ppbv		2.00		113	70-130		
Tetrachloroethene	**2.26**		ppbv		2.00		113	70-130		
Chlorobenzene	**2.02**		ppbv		2.00		101	70-130		
1,1,1,2-Tetrachloroethane	**2.17**		ppbv		2.00		108	50-150		
Ethylbenzene	**2.03**		ppbv		2.00		102	70-130		
m,p-Xylene	**4.27**		ppbv		4.00		107	70-130		
Bromoform	**2.28**		ppbv		2.00		114	70-130		
Styrene	**2.16**		ppbv		2.00		108	70-130		
o-Xylene	**2.14**		ppbv		2.00		107	70-130		
1,1,2,2-Tetrachloroethane	**2.20**		ppbv		2.00		110	70-130		
Isopropylbenzene	**2.15**		ppbv		2.00		108	50-150		
1,3,5-Trimethylbenzene	**2.13**		ppbv		2.00		106	70-130		
4-Ethyltoluene	**2.17**		ppbv		2.00		108	70-130		
1,2,4-Trimethylbenzene	**2.15**		ppbv		2.00		108	70-130		
Naphthalene	**1.54**		ppbv		2.00		77	50-150		
1,3-Dichlorobenzene	**2.27**		ppbv		2.00		114	70-130		
Benzyl chloride	**2.21**		ppbv		2.00		110	70-130		
1,4-Dichlorobenzene	**2.30**		ppbv		2.00		115	70-130		
sec-Butylbenzene	**2.03**		ppbv		2.00		102	50-150		
4-Isopropyltoluene	**1.97**		ppbv		2.00		98	50-150		
1,2-Dichlorobenzene	**2.27**		ppbv		2.00		114	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517798 - General Air Prep										
LCS (1517798-BS1)					Prepared & Analyzed: 18-Sep-15					
n-Butylbenzene	**1.91**		ppbv		2.00		96	50-150		
1,2,4-Trichlorobenzene	**2.53**		ppbv		2.00		126	70-130		
Hexachlorobutadiene	**2.33**		ppbv		2.00		116	70-130		
Surrogate: 4-Bromofluorobenzene	*9.92*		ppbv		*10.0*		*99*	*70-130*		

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 7/22/2015

Canister ID: 1005 **Analyst's Initials:** BRF

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.5	Ethanol	<0.5
Acrylonitrile	<0.1	4-Isopropyl Toluene	<0.5
Benzene	<0.1	Ethyl acetate	<0.1
Benzyl chloride	<0.1	Ethylbenzene	<0.1
Bromodichloromethane	<0.1	4-Ethyltoluene	<0.1
Bromoform	<0.1	n-Heptane	<0.1
Bromomethane	<0.1	Hexachlorobutadiene	<0.1
1,3-Butadiene	<0.1	Hexane	<0.1
2-Butanone (MEK)	<0.1	2-Hexanone (MBK)	<0.1
Carbon disulfide	<0.5	Isopropyl alcohol	<0.5
Carbon tetrachloride	<0.1	4-Methyl-2-pentanone (MIBK)	<0.1
Chlorobenzene	<0.1	Methyl tert-butyl ether	<0.1
Chloroethane	<0.1	Methylene chloride	<0.1
1,4-Dioxane	<0.1	Naphthalene	<0.5
n-Butylbenzene	<0.1	1,1,1,2-Tetrachlorethane	<0.1
Chloroform	<0.1	Propene	<0.1
Chloromethane	<0.1	Styrene	<0.1
Cyclohexane	<0.1	1,1,2,2-Tetrachloroethane	<0.1
Dibromochloromethane	<0.1	Tetrachloroethene	<0.1
1,2-Dibromoethane (EDB)	<0.1	Tetrahydrofuran	<0.1
1,2-Dichlorobenzene	<0.1	Toluene	<0.1
1,3-Dichlorobenzene	<0.1	1,2,4-Trichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1	1,1,1-Trichloroethane	<0.1
Dichlorodifluoromethane (Freon12)	<0.1	1,1,2-Trichloroethane	<0.1
1,1-Dichloroethane	<0.1	Trichloroethene	<0.1
1,2-Dichloroethane	<0.1	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.1
1,1-Dichloroethene	<0.1	Trichlorofluoromethane (Freon 11)	<0.1
cis-1,2-Dichloroethene	<0.1	1,2,4-Trimethylbenzene	<0.1
trans-1,2-Dichloroethene	<0.1	1,3,5-Trimethylbenzene	<0.1
1,2-Dichloropropane	<0.1	Vinyl chloride	<0.1
cis-1,3-Dichloropropene	<0.1	m,p-Xylene	<0.1
trans-1,3-Dichloropropene	<0.1	o-Xylene	<0.1
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.1	sec-Butylbenzene	<0.1
Isopropylbenzene	<0.1		

This certification applies to the following sampling devices:

1005

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 7/13/2015

Canister ID: 1365 **Analyst's Initials:** NAA

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.5	Ethanol	<0.5
Acrylonitrile	<0.1	4-Isopropyl Toluene	<0.5
Benzene	<0.1	Ethyl acetate	<0.1
Benzyl chloride	<0.1	Ethylbenzene	<0.1
Bromodichloromethane	<0.1	4-Ethyltoluene	<0.1
Bromoform	<0.1	n-Heptane	<0.1
Bromomethane	<0.1	Hexachlorobutadiene	<0.1
1,3-Butadiene	<0.1	Hexane	<0.1
2-Butanone (MEK)	<0.1	2-Hexanone (MBK)	<0.1
Carbon disulfide	<0.5	Isopropyl alcohol	<0.5
Carbon tetrachloride	<0.1	4-Methyl-2-pentanone (MIBK)	<0.1
Chlorobenzene	<0.1	Methyl tert-butyl ether	<0.1
Chloroethane	<0.1	Methylene chloride	<0.1
1,4-Dioxane	<0.1	Naphthalene	<0.5
n-Butylbenzene	<0.1	1,1,1,2-Tetrachlorethane	<0.1
Chloroform	<0.1	Propene	<0.1
Chloromethane	<0.1	Styrene	<0.1
Cyclohexane	<0.1	1,1,2,2-Tetrachloroethane	<0.1
Dibromochloromethane	<0.1	Tetrachloroethene	<0.1
1,2-Dibromoethane (EDB)	<0.1	Tetrahydrofuran	<0.1
1,2-Dichlorobenzene	<0.1	Toluene	<0.1
1,3-Dichlorobenzene	<0.1	1,2,4-Trichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1	1,1,1-Trichloroethane	<0.1
Dichlorodifluoromethane (Freon12)	<0.1	1,1,2-Trichloroethane	<0.1
1,1-Dichloroethane	<0.1	Trichloroethene	<0.1
1,2-Dichloroethane	<0.1	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.1
1,1-Dichloroethene	<0.1	Trichlorofluoromethane (Freon 11)	<0.1
cis-1,2-Dichloroethene	<0.1	1,2,4-Trimethylbenzene	<0.1
trans-1,2-Dichloroethene	<0.1	1,3,5-Trimethylbenzene	<0.1
1,2-Dichloropropane	<0.1	Vinyl chloride	<0.1
cis-1,3-Dichloropropene	<0.1	m,p-Xylene	<0.1
trans-1,3-Dichloropropene	<0.1	o-Xylene	<0.1
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.1	sec-Butylbenzene	<0.1
Isopropylbenzene	<0.1		

This certification applies to the following sampling devices:

1365

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 7/16/2015

Canister ID: 4626 **Analyst's Initials:** NAA

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.5	Ethanol	<0.5
Acrylonitrile	<0.1	4-Isopropyl Toluene	<0.5
Benzene	<0.1	Ethyl acetate	<0.1
Benzyl chloride	<0.1	Ethylbenzene	<0.1
Bromodichloromethane	<0.1	4-Ethyltoluene	<0.1
Bromoform	<0.1	n-Heptane	<0.1
Bromomethane	<0.1	Hexachlorobutadiene	<0.1
1,3-Butadiene	<0.1	Hexane	<0.1
2-Butanone (MEK)	<0.1	2-Hexanone (MBK)	<0.1
Carbon disulfide	<0.5	Isopropyl alcohol	<0.5
Carbon tetrachloride	<0.1	4-Methyl-2-pentanone (MIBK)	<0.1
Chlorobenzene	<0.1	Methyl tert-butyl ether	<0.1
Chloroethane	<0.1	Methylene chloride	<0.1
1,4-Dioxane	<0.1	Naphthalene	<0.5
n-Butylbenzene	<0.1	1,1,1,2-Tetrachlorethane	<0.1
Chloroform	<0.1	Propene	<0.1
Chloromethane	<0.1	Styrene	<0.1
Cyclohexane	<0.1	1,1,2,2-Tetrachloroethane	<0.1
Dibromochloromethane	<0.1	Tetrachloroethene	<0.1
1,2-Dibromoethane (EDB)	<0.1	Tetrahydrofuran	<0.1
1,2-Dichlorobenzene	<0.1	Toluene	<0.1
1,3-Dichlorobenzene	<0.1	1,2,4-Trichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1	1,1,1-Trichloroethane	<0.1
Dichlorodifluoromethane (Freon12)	<0.1	1,1,2-Trichloroethane	<0.1
1,1-Dichloroethane	<0.1	Trichloroethene	<0.1
1,2-Dichloroethane	<0.1	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.1
1,1-Dichloroethene	<0.1	Trichlorofluoromethane (Freon 11)	<0.1
cis-1,2-Dichloroethene	<0.1	1,2,4-Trimethylbenzene	<0.1
trans-1,2-Dichloroethene	<0.1	1,3,5-Trimethylbenzene	<0.1
1,2-Dichloropropane	<0.1	Vinyl chloride	<0.1
cis-1,3-Dichloropropene	<0.1	m,p-Xylene	<0.1
trans-1,3-Dichloropropene	<0.1	o-Xylene	<0.1
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.1	sec-Butylbenzene	<0.1
Isopropylbenzene	<0.1		

This certification applies to the following sampling devices:

4626

Notes and Definitions

B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
O01	This compound is a common laboratory contaminant.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Rebecca Merz

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Chain of Custody Record/Field Test Data Sheets for Air Analyses

Page 1 of 1

SC12142

Special Handling:
☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____
All TATs subject to laboratory approval.
Min. 24-hour notification needed for rushes.

Report To: Erik Urch	**Invoice To:** Erik Urch	
1 Elm St #3	1 Elm St #3	**Project No.:** 08-223948.00
Waterbury VT ~~05660~~ 05676	Waterbury VT ~~05660~~ 05676	**Site Name:** Poplawski
		Location: Rutland **State:** VT
Tel #: 802 241 4131	**Attn:**	**Sampler(s):** Katrina Mattice
Project Manager: Erik Urch	**P.O. No.:** 08-223948.00 **RQN:** Extreme	

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Readout (ml/min)	Lab Id:	Sample Id:	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	TO15				Indoor /Ambient Air	Soil Gas	Check box if canister is returned unused
LABORATORY USE ONLY																					
W4626	6	-30		2970	3.18	SC12142-01	IA-Basement A	9/3/15	0941	0921	-26	-4	73.8	73.8	X				X		
W1005	6	-30		2866	3.19	02	IA-Floor 1A	9/3/15	0931	0913	-30	-4	75.1	72.1	X				X		
W1365	6	-30		2881	3.17	03	IA-Floor 2A	9/3/15	0921	0911	-29	-2	76.0	70.8	X				X		

243/0/24.3/02 AA 09/08 Ambient

Date of Request: 8/31/15	Total # Canisters: 3		
Requested by: Katrina Mattice	# LL Canisters: 3		
Company: ECS	# Flow Controllers: 3		
Location: Waterbury, VT	Flow Rate/Setting: 24/15		
Date Needed: 9/1/15	Order #: 36621	Prepared by: BRP/EW	

I attest that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition, based on visual observation, and agree to the terms and conditions as listed on the back of this document.

Signed: Katrina Mattice Date: 9/3/15

Printed: Katrina Mattice

QA/QC Reporting Level:

☒ Standard ☐ NY ASP A* ☐ TIER II* ☐ MA DEP CAM
☐ NO QC ☐ NY ASP B* ☐ TIER IV* ☐ CT DPH RCP
☐ DQA*

* additional charges may apply contact SA's QA Department for further info.

Client Use	Ambient Temperature (Fahrenheit)	Ambient Pressure (inches of Hg)
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Custody sealed
AA 9/8

Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.

Relinquished by:	Received by:	Date:	Time:
Katrina Mattice		9/4/15	1200
UPS	AA	9/8/15	10:30

☐ EDD Format
☒ E-mail Results to eurch@ecsconsult.com

UPS Next Day Air®
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Shipping Document

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1
1

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REFERENCE NUMBER

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TELEPHONE 413 7549018

LAB Air

Spectrum Analytical - LAB

11 Almgren Dr.

AGAWAM, MA 01001-3831

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1Z F31 7E5 22 1000 321 1

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TRACKING NUMBER

DATE OF SHIPMENT 9/4/15

SHIPMENT ID NUMBER F317 E579 XSX

0101911202609 6/14 RRD

United Parcel Service, Louisville, KY

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Chain of Custody Record/Field Test Data Sheets for Air Analyses

Page 1 of 1

SC 12142

Special Handling:
☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____
All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.

Report To: Erik Urch
1 Elm St #3
Waterbury, VT ~~05660~~ 05676
Tel #: 802 241 4131
Project Manager: Erik Urch

Invoice To: Erik Urch
1 Elm St #3
Waterbury VT ~~05660~~ 05676
Attn:
P.O. No.: 08-223948.00 RQN: Extreme

Project No.: 08-223948.00
Site Name: Poplawski
Location: Rutland State: VT
Sampler(s): Katrina Mattice

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Reading (ml/min)	Lab Id	Sample Id	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Analysis: VOC	Analysis:	Analysis:	Analysis:	Matrix: Indoor/Ambient Air	Matrix: Soil Gas	Check box if canister is returned unused
			LABORATORY USE ONLY																		
4626	6	-30	-4	2970	3.18	SC12142.01	IA-Basement A	9/3/15	0941	0921	-26	-4	73.8	73.8	X				X		
1005	6	-30	-2	2866	3.19	02	IA-Floor 1A	9/3/15	0931	0913	-30	-4	75.1	72.1	X				X		
1365	6	-30	-2	2881	3.17	03	IA-Floor 2A	9/3/15	0921	0911	-29	-2	76.0	70.8	X				X		

243/0/243/02 AA 09/08 Ambient

Date of Request: 8/31/15
Requested by: Katrina Mattice
Company: ECS
Location: Waterbury, VT
Date Needed: 9/1/15 Order #: 36621
Total # Canisters: 3
LL Canisters: 3
Flow Controllers: 3
Flow Rate/Setting: 24/hr
Prepared by: BRP/EW

QA/QC Reporting Level:
☒ Standard ☐ NY ASP A* ☐ TIER II* ☐ MA DEP CAM
☐ NO QC ☐ NY ASP B* ☐ TIER IV* ☐ CT DPH RCP
☐ DQA* * additional charges may apply contact SA's QA Department for further info.

Client Use	Ambient Temperature (Fahrenheit)	Ambient Pressure (inches of Hg)
Start		
Stop		

Special Instructions/QC Requirements & Comments:
Custody Sealed
AA 9/8

I attest that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition, based on visual observation, and agree to the terms and conditions as listed on the back of this document.
Signed: Katrina Mattice Date: 9/3/15
Printed: Katrina Mattice

Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.

Relinquished by:	Received by:	Date:	Time:
Katrina Mattice		9/4/15	1200
CIB	AA	9/8/15	10:30

☐ EDD Format
☒ E-mail Results to eurch@ecsconsult.com

eurofins | Spectrum Analytical

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Report Date:
21-Sep-15 15:33

Laboratory Report

Environmental Compliance Services
1 Elm St. Suite 3
Waterbury, VT 05676
Attn: Erik Urch

Project: Poplawski Residence - Rutland, VT
Project #: 08-223948.00

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC12236-01	Water-Basement	Ground Water	03-Sep-15 09:51	09-Sep-15 11:05

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00098
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Eurofins Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 14 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 3.8 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 8260C

Calibration:

1509005

Analyte quantified by quadratic equation type calibration.

1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane (EDB)
1,3,5-Trichlorobenzene
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dioxane
2-Chlorotoluene
2-Hexanone (MBK)
4-Chlorotoluene
4-Isopropyltoluene
4-Methyl-2-pentanone (MIBK)
Acetone
Bromodichloromethane
Bromoform
cis-1,3-Dichloropropene
Dibromochloromethane
Ethanol
Ethylbenzene
Hexachlorobutadiene
Isopropylbenzene
m,p-Xylene
Naphthalene
n-Butylbenzene
n-Propylbenzene
o-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrahydrofuran
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene
Vinyl chloride

SW846 8260C

Calibration:

1509005

This affected the following samples:

1517415-BLK1
1517415-BS1
1517415-BSD1
S508090-ICV1
S508298-CCV1
Water-Basement

S508090-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2-Dichlorobenzene (125%)

This affected the following samples:

1517415-BLK1
1517415-BS1
1517415-BSD1
S508298-CCV1
Water-Basement

Laboratory Control Samples:

1517415 BS/BSD

n-Butylbenzene percent recoveries (136/111) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Water-Basement

1517415 BSD

2-Butanone (MEK) RPD 23% (20%) is outside individual acceptance criteria.

4-Methyl-2-pentanone (MIBK) RPD 26% (20%) is outside individual acceptance criteria.

Hexachlorobutadiene RPD 30% (20%) is outside individual acceptance criteria.

n-Butylbenzene RPD 21% (20%) is outside individual acceptance criteria.

Tetrachloroethene RPD 23% (20%) is outside individual acceptance criteria.

Samples:

S508298-CCV1

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Vinyl chloride (24.4%)

This affected the following samples:

1517415-BLK1
1517415-BS1
1517415-BSD1
Water-Basement

SC12236-01 *Water-Basement*

SW846 8260C

Samples:

SC12236-01 *Water-Basement*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.

Toluene-d8

Sample Acceptance Check Form

Client:	Environmental Compliance Services - Waterbury, VT
Project:	Poplawski Residence - Rutland, VT / 08-223948.00
Work Order:	SC12236
Sample(s) received on:	9/9/2015

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☑	☐	☐
Were custody seals intact?	☑	☐	☐
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC12236-01 **Client ID:** Water-Basement

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	830	D	10.0	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	191	D	10.0	µg/l	SW846 8260C
Chloroform	15.2	D	10.0	µg/l	SW846 8260C
Ethylbenzene	80.6	D	10.0	µg/l	SW846 8260C
Isopropylbenzene	37.5	D	10.0	µg/l	SW846 8260C
m,p-Xylene	827	D	20.0	µg/l	SW846 8260C
Naphthalene	232	D	10.0	µg/l	SW846 8260C
n-Butylbenzene	23.0	D	10.0	µg/l	SW846 8260C
n-Propylbenzene	66.1	D	10.0	µg/l	SW846 8260C
o-Xylene	193	D	10.0	µg/l	SW846 8260C
sec-Butylbenzene	38.8	D	10.0	µg/l	SW846 8260C
Toluene	38.1	D	10.0	µg/l	SW846 8260C

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Water-Basement	08-223948.00	Ground Water	03-Sep-15 09:51	09-Sep-15
SC12236-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 10.0	D	µg/l	10.0	5.3	10	SW846 8260C	14-Sep-15	14-Sep-15	NAA	1517415	X
67-64-1	Acetone	< 100	D	µg/l	100	24.8	10	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 5.0	D	µg/l	5.0	4.7	10	"	"	"	"	"	X
71-43-2	Benzene	< 10.0	D	µg/l	10.0	1.7	10	"	"	"	"	"	X
108-86-1	Bromobenzene	< 10.0	D	µg/l	10.0	1.1	10	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 10.0	D	µg/l	10.0	2.7	10	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 5.0	D	µg/l	5.0	1.8	10	"	"	"	"	"	X
75-25-2	Bromoform	< 10.0	D	µg/l	10.0	2.9	10	"	"	"	"	"	X
74-83-9	Bromomethane	< 20.0	D	µg/l	20.0	5.0	10	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 100	D	µg/l	100	12.4	10	"	"	"	"	"	X
104-51-8	n-Butylbenzene	**23.0**	D	µg/l	10.0	2.6	10	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	**38.8**	D	µg/l	10.0	1.6	10	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 10.0	D	µg/l	10.0	2.1	10	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 20.0	D	µg/l	20.0	2.5	10	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 10.0	D	µg/l	10.0	2.3	10	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 10.0	D	µg/l	10.0	2.0	10	"	"	"	"	"	X
75-00-3	Chloroethane	< 20.0	D	µg/l	20.0	3.9	10	"	"	"	"	"	X
67-66-3	Chloroform	**15.2**	D	µg/l	10.0	4.1	10	"	"	"	"	"	X
74-87-3	Chloromethane	< 20.0	D	µg/l	20.0	3.4	10	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 10.0	D	µg/l	10.0	3.0	10	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 10.0	D	µg/l	10.0	2.0	10	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 20.0	D	µg/l	20.0	8.6	10	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 5.0	D	µg/l	5.0	2.4	10	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 5.0	D	µg/l	5.0	2.6	10	"	"	"	"	"	X
74-95-3	Dibromomethane	< 10.0	D	µg/l	10.0	2.6	10	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 10.0	D	µg/l	10.0	1.6	10	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 10.0	D	µg/l	10.0	2.2	10	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 10.0	D	µg/l	10.0	2.5	10	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 20.0	D	µg/l	20.0	5.8	10	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 10.0	D	µg/l	10.0	1.7	10	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 10.0	D	µg/l	10.0	1.6	10	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 10.0	D	µg/l	10.0	2.8	10	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 10.0	D	µg/l	10.0	2.3	10	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 10.0	D	µg/l	10.0	2.1	10	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 10.0	D	µg/l	10.0	1.5	10	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 10.0	D	µg/l	10.0	2.2	10	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 10.0	D	µg/l	10.0	6.7	10	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 10.0	D	µg/l	10.0	2.8	10	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 5.0	D	µg/l	5.0	2.0	10	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 5.0	D	µg/l	5.0	2.7	10	"	"	"	"	"	X
100-41-4	Ethylbenzene	**80.6**	D	µg/l	10.0	1.7	10	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 5.0	D	µg/l	5.0	4.0	10	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 100	D	µg/l	100	5.4	10	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Water-Basement	08-223948.00	Ground Water	03-Sep-15 09:51	09-Sep-15
SC12236-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	**37.5**	D	µg/l	10.0	2.3	10	SW846 8260C	14-Sep-15	14-Sep-15	NAA	1517415	X
99-87-6	4-Isopropyltoluene	< 10.0	D	µg/l	10.0	3.8	10	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 10.0	D	µg/l	10.0	1.7	10	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 100	D	µg/l	100	7.4	10	"	"	"	"	"	X
75-09-2	Methylene chloride	< 20.0	D	µg/l	20.0	2.9	10	"	"	"	"	"	X
91-20-3	Naphthalene	**232**	D	µg/l	10.0	4.0	10	"	"	"	"	"	X
103-65-1	n-Propylbenzene	**66.1**	D	µg/l	10.0	2.2	10	"	"	"	"	"	X
100-42-5	Styrene	< 10.0	D	µg/l	10.0	1.8	10	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 10.0	D	µg/l	10.0	2.4	10	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 5.0	D	µg/l	5.0	3.2	10	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 10.0	D	µg/l	10.0	5.7	10	"	"	"	"	"	X
108-88-3	Toluene	**38.1**	D	µg/l	10.0	3.3	10	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 10.0	D	µg/l	10.0	2.5	10	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 10.0	D	µg/l	10.0	3.8	10	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 10.0	D	µg/l	10.0	2.0	10	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 10.0	D	µg/l	10.0	2.1	10	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 10.0	D	µg/l	10.0	1.9	10	"	"	"	"	"	X
79-01-6	Trichloroethene	< 10.0	D	µg/l	10.0	3.8	10	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 10.0	D	µg/l	10.0	4.9	10	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 10.0	D	µg/l	10.0	2.0	10	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	**830**	D	µg/l	10.0	4.0	10	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**191**	D	µg/l	10.0	8.9	10	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 10.0	D	µg/l	10.0	3.4	10	"	"	"	"	"	X
179601-23-1	m,p-Xylene	**827**	D	µg/l	20.0	3.8	10	"	"	"	"	"	X
95-47-6	o-Xylene	**193**	D	µg/l	10.0	4.7	10	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 20.0	D	µg/l	20.0	7.2	10	"	"	"	"	"	
60-29-7	Ethyl ether	< 10.0	D	µg/l	10.0	2.0	10	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 10.0	D	µg/l	10.0	3.5	10	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 10.0	D	µg/l	10.0	1.5	10	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 10.0	D	µg/l	10.0	2.2	10	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 100	D	µg/l	100	74.9	10	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 200	D	µg/l	200	124	10	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 50.0	D	µg/l	50.0	11.1	10	"	"	"	"	"	X
64-17-5	Ethanol	< 4000	D	µg/l	4000	227	10	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*69*	SGCMSV OC		*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*115*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517415 - SW846 5030 Water MS										
Blank (1517415-BLK1)					Prepared & Analyzed: 14-Sep-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517415 - SW846 5030 Water MS										
Blank (1517415-BLK1)					Prepared & Analyzed: 14-Sep-15					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*44.6*		µg/l		*50.0*		*89*	*70-130*		
Surrogate: Toluene-d8	*40.4*		µg/l		*50.0*		*81*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*56.3*		µg/l		*50.0*		*113*	*70-130*		
Surrogate: Dibromofluoromethane	*51.5*		µg/l		*50.0*		*103*	*70-130*		
LCS (1517415-BS1)					Prepared & Analyzed: 14-Sep-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.1**		µg/l		20.0		106	70-130		
Acetone	**20.6**		µg/l		20.0		103	70-130		
Acrylonitrile	**18.5**		µg/l		20.0		92	70-130		
Benzene	**20.6**		µg/l		20.0		103	70-130		
Bromobenzene	**16.3**		µg/l		20.0		81	70-130		
Bromochloromethane	**18.4**		µg/l		20.0		92	70-130		
Bromodichloromethane	**20.0**		µg/l		20.0		100	70-130		
Bromoform	**17.3**		µg/l		20.0		87	70-130		
Bromomethane	**19.2**		µg/l		20.0		96	70-130		
2-Butanone (MEK)	**15.4**		µg/l		20.0		77	70-130		
n-Butylbenzene	**27.2**	QM9	µg/l		20.0		136	70-130		
sec-Butylbenzene	**21.4**		µg/l		20.0		107	70-130		
tert-Butylbenzene	**19.8**		µg/l		20.0		99	70-130		
Carbon disulfide	**18.6**		µg/l		20.0		93	70-130		
Carbon tetrachloride	**19.3**		µg/l		20.0		96	70-130		
Chlorobenzene	**19.1**		µg/l		20.0		95	70-130		
Chloroethane	**20.2**		µg/l		20.0		101	70-130		
Chloroform	**20.3**		µg/l		20.0		101	70-130		
Chloromethane	**17.5**		µg/l		20.0		88	70-130		
2-Chlorotoluene	**17.5**		µg/l		20.0		87	70-130		
4-Chlorotoluene	**17.5**		µg/l		20.0		88	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517415 - SW846 5030 Water MS										
LCS (1517415-BS1)					Prepared & Analyzed: 14-Sep-15					
1,2-Dibromo-3-chloropropane	**19.0**		µg/l		20.0		95	70-130		
Dibromochloromethane	**17.1**		µg/l		20.0		86	70-130		
1,2-Dibromoethane (EDB)	**16.2**		µg/l		20.0		81	70-130		
Dibromomethane	**18.6**		µg/l		20.0		93	70-130		
1,2-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	**17.7**		µg/l		20.0		89	70-130		
1,4-Dichlorobenzene	**17.7**		µg/l		20.0		88	70-130		
Dichlorodifluoromethane (Freon12)	**18.9**		µg/l		20.0		95	70-130		
1,1-Dichloroethane	**20.3**		µg/l		20.0		101	70-130		
1,2-Dichloroethane	**19.9**		µg/l		20.0		100	70-130		
1,1-Dichloroethene	**20.7**		µg/l		20.0		104	70-130		
cis-1,2-Dichloroethene	**20.8**		µg/l		20.0		104	70-130		
trans-1,2-Dichloroethene	**22.0**		µg/l		20.0		110	70-130		
1,2-Dichloropropane	**19.0**		µg/l		20.0		95	70-130		
1,3-Dichloropropane	**16.4**		µg/l		20.0		82	70-130		
2,2-Dichloropropane	**20.1**		µg/l		20.0		100	70-130		
1,1-Dichloropropene	**21.3**		µg/l		20.0		107	70-130		
cis-1,3-Dichloropropene	**16.6**		µg/l		20.0		83	70-130		
trans-1,3-Dichloropropene	**15.7**		µg/l		20.0		78	70-130		
Ethylbenzene	**21.6**		µg/l		20.0		108	70-130		
Hexachlorobutadiene	**25.5**		µg/l		20.0		128	70-130		
2-Hexanone (MBK)	**16.7**		µg/l		20.0		83	70-130		
Isopropylbenzene	**19.6**		µg/l		20.0		98	70-130		
4-Isopropyltoluene	**24.0**		µg/l		20.0		120	70-130		
Methyl tert-butyl ether	**17.2**		µg/l		20.0		86	70-130		
4-Methyl-2-pentanone (MIBK)	**22.5**		µg/l		20.0		112	70-130		
Methylene chloride	**19.7**		µg/l		20.0		98	70-130		
Naphthalene	**19.8**		µg/l		20.0		99	70-130		
n-Propylbenzene	**23.4**		µg/l		20.0		117	70-130		
Styrene	**19.6**		µg/l		20.0		98	70-130		
1,1,1,2-Tetrachloroethane	**19.6**		µg/l		20.0		98	70-130		
1,1,2,2-Tetrachloroethane	**16.3**		µg/l		20.0		82	70-130		
Tetrachloroethene	**18.4**		µg/l		20.0		92	70-130		
Toluene	**18.4**		µg/l		20.0		92	70-130		
1,2,3-Trichlorobenzene	**20.2**		µg/l		20.0		101	70-130		
1,2,4-Trichlorobenzene	**19.9**		µg/l		20.0		99	70-130		
1,3,5-Trichlorobenzene	**20.7**		µg/l		20.0		104	70-130		
1,1,1-Trichloroethane	**19.0**		µg/l		20.0		95	70-130		
1,1,2-Trichloroethane	**16.6**		µg/l		20.0		83	70-130		
Trichloroethene	**21.6**		µg/l		20.0		108	70-130		
Trichlorofluoromethane (Freon 11)	**20.9**		µg/l		20.0		104	70-130		
1,2,3-Trichloropropane	**16.7**		µg/l		20.0		84	70-130		
1,2,4-Trimethylbenzene	**21.1**		µg/l		20.0		105	70-130		
1,3,5-Trimethylbenzene	**20.2**		µg/l		20.0		101	70-130		
Vinyl chloride	**24.2**		µg/l		20.0		121	70-130		
m,p-Xylene	**20.4**		µg/l		20.0		102	70-130		
o-Xylene	**18.2**		µg/l		20.0		91	70-130		
Tetrahydrofuran	**20.8**		µg/l		20.0		104	70-130		
Ethyl ether	**20.2**		µg/l		20.0		101	70-130		
Tert-amyl methyl ether	**15.9**		µg/l		20.0		80	70-130		
Ethyl tert-butyl ether	**16.3**		µg/l		20.0		82	70-130		
Di-isopropyl ether	**20.6**		µg/l		20.0		103	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517415 - SW846 5030 Water MS										
LCS (1517415-BS1)					Prepared & Analyzed: 14-Sep-15					
Tert-Butanol / butyl alcohol	**175**		µg/l		200		87	70-130		
1,4-Dioxane	**196**		µg/l		200		98	70-130		
trans-1,4-Dichloro-2-butene	**16.8**		µg/l		20.0		84	70-130		
Ethanol	**346**		µg/l		400		86	70-130		
Surrogate: 4-Bromofluorobenzene	*44.7*		µg/l		*50.0*		*89*	*70-130*		
Surrogate: Toluene-d8	*43.7*		µg/l		*50.0*		*87*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.8*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Dibromofluoromethane	*50.5*		µg/l		*50.0*		*101*	*70-130*		
LCS Dup (1517415-BSD1)					Prepared & Analyzed: 14-Sep-15					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.6**		µg/l		20.0		108	70-130	2	20
Acetone	**19.0**		µg/l		20.0		95	70-130	8	20
Acrylonitrile	**17.7**		µg/l		20.0		89	70-130	4	20
Benzene	**20.6**		µg/l		20.0		103	70-130	0.2	20
Bromobenzene	**18.8**		µg/l		20.0		94	70-130	15	20
Bromochloromethane	**18.3**		µg/l		20.0		92	70-130	0.4	20
Bromodichloromethane	**20.3**		µg/l		20.0		101	70-130	1	20
Bromoform	**19.6**		µg/l		20.0		98	70-130	12	20
Bromomethane	**20.9**		µg/l		20.0		104	70-130	9	20
2-Butanone (MEK)	**19.4**	QR2	µg/l		20.0		97	70-130	23	20
n-Butylbenzene	**22.2**	QR2	µg/l		20.0		111	70-130	21	20
sec-Butylbenzene	**20.8**		µg/l		20.0		104	70-130	2	20
tert-Butylbenzene	**19.7**		µg/l		20.0		98	70-130	0.6	20
Carbon disulfide	**18.3**		µg/l		20.0		92	70-130	2	20
Carbon tetrachloride	**19.7**		µg/l		20.0		99	70-130	2	20
Chlorobenzene	**18.1**		µg/l		20.0		90	70-130	5	20
Chloroethane	**20.8**		µg/l		20.0		104	70-130	3	20
Chloroform	**20.7**		µg/l		20.0		103	70-130	2	20
Chloromethane	**19.4**		µg/l		20.0		97	70-130	10	20
2-Chlorotoluene	**20.6**		µg/l		20.0		103	70-130	16	20
4-Chlorotoluene	**20.9**		µg/l		20.0		105	70-130	18	20
1,2-Dibromo-3-chloropropane	**19.6**		µg/l		20.0		98	70-130	4	20
Dibromochloromethane	**16.8**		µg/l		20.0		84	70-130	2	20
1,2-Dibromoethane (EDB)	**15.4**		µg/l		20.0		77	70-130	6	20
Dibromomethane	**19.8**		µg/l		20.0		99	70-130	6	20
1,2-Dichlorobenzene	**19.8**		µg/l		20.0		99	70-130	1	20
1,3-Dichlorobenzene	**18.6**		µg/l		20.0		93	70-130	5	20
1,4-Dichlorobenzene	**19.3**		µg/l		20.0		97	70-130	9	20
Dichlorodifluoromethane (Freon12)	**19.1**		µg/l		20.0		95	70-130	0.7	20
1,1-Dichloroethane	**20.8**		µg/l		20.0		104	70-130	3	20
1,2-Dichloroethane	**20.8**		µg/l		20.0		104	70-130	5	20
1,1-Dichloroethene	**20.2**		µg/l		20.0		101	70-130	3	20
cis-1,2-Dichloroethene	**20.2**		µg/l		20.0		101	70-130	3	20
trans-1,2-Dichloroethene	**20.6**		µg/l		20.0		103	70-130	7	20
1,2-Dichloropropane	**19.7**		µg/l		20.0		98	70-130	3	20
1,3-Dichloropropane	**16.4**		µg/l		20.0		82	70-130	0.2	20
2,2-Dichloropropane	**19.9**		µg/l		20.0		100	70-130	0.8	20
1,1-Dichloropropene	**20.6**		µg/l		20.0		103	70-130	3	20
cis-1,3-Dichloropropene	**16.0**		µg/l		20.0		80	70-130	4	20
trans-1,3-Dichloropropene	**15.1**		µg/l		20.0		76	70-130	4	20
Ethylbenzene	**20.5**		µg/l		20.0		102	70-130	5	20
Hexachlorobutadiene	**18.9**	QR2	µg/l		20.0		94	70-130	30	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1517415 - SW846 5030 Water MS										
LCS Dup (1517415-BSD1)					Prepared & Analyzed: 14-Sep-15					
2-Hexanone (MBK)	**18.2**		µg/l		20.0		91	70-130	9	20
Isopropylbenzene	**20.0**		µg/l		20.0		100	70-130	2	20
4-Isopropyltoluene	**21.3**		µg/l		20.0		106	70-130	12	20
Methyl tert-butyl ether	**16.9**		µg/l		20.0		84	70-130	2	20
4-Methyl-2-pentanone (MIBK)	**17.4**	QR2	µg/l		20.0		87	70-130	26	20
Methylene chloride	**20.5**		µg/l		20.0		102	70-130	4	20
Naphthalene	**19.2**		µg/l		20.0		96	70-130	3	20
n-Propylbenzene	**20.1**		µg/l		20.0		100	70-130	15	20
Styrene	**18.1**		µg/l		20.0		91	70-130	8	20
1,1,1,2-Tetrachloroethane	**19.7**		µg/l		20.0		99	70-130	0.9	20
1,1,2,2-Tetrachloroethane	**18.8**		µg/l		20.0		94	70-130	14	20
Tetrachloroethene	**14.7**	QR2	µg/l		20.0		74	70-130	23	20
Toluene	**16.9**		µg/l		20.0		84	70-130	9	20
1,2,3-Trichlorobenzene	**18.7**		µg/l		20.0		93	70-130	8	20
1,2,4-Trichlorobenzene	**17.4**		µg/l		20.0		87	70-130	13	20
1,3,5-Trichlorobenzene	**17.7**		µg/l		20.0		89	70-130	16	20
1,1,1-Trichloroethane	**19.1**		µg/l		20.0		96	70-130	0.4	20
1,1,2-Trichloroethane	**17.4**		µg/l		20.0		87	70-130	5	20
Trichloroethene	**20.7**		µg/l		20.0		104	70-130	4	20
Trichlorofluoromethane (Freon 11)	**22.1**		µg/l		20.0		111	70-130	6	20
1,2,3-Trichloropropane	**19.6**		µg/l		20.0		98	70-130	16	20
1,2,4-Trimethylbenzene	**21.1**		µg/l		20.0		106	70-130	0.2	20
1,3,5-Trimethylbenzene	**20.3**		µg/l		20.0		101	70-130	0.2	20
Vinyl chloride	**25.9**		µg/l		20.0		129	70-130	7	20
m,p-Xylene	**19.1**		µg/l		20.0		96	70-130	6	20
o-Xylene	**18.8**		µg/l		20.0		94	70-130	3	20
Tetrahydrofuran	**21.0**		µg/l		20.0		105	70-130	1	20
Ethyl ether	**19.9**		µg/l		20.0		100	70-130	1	20
Tert-amyl methyl ether	**14.8**		µg/l		20.0		74	70-130	7	20
Ethyl tert-butyl ether	**16.1**		µg/l		20.0		80	70-130	1	20
Di-isopropyl ether	**20.1**		µg/l		20.0		100	70-130	2	20
Tert-Butanol / butyl alcohol	**170**		µg/l		200		85	70-130	3	20
1,4-Dioxane	**184**		µg/l		200		92	70-130	6	20
trans-1,4-Dichloro-2-butene	**18.9**		µg/l		20.0		94	70-130	12	20
Ethanol	**383**		µg/l		400		96	70-130	10	20
Surrogate: 4-Bromofluorobenzene	*50.5*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*41.8*		µg/l		*50.0*		*84*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.6*		µg/l		*50.0*		*107*	*70-130*		
Surrogate: Dibromofluoromethane	*53.2*		µg/l		*50.0*		*106*	*70-130*		

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
SGCMSVOC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Kimberly LaPlante

SC12236 AA

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: Erik Urch
1 Elm St #3
Waterbury VT 05676

Telephone #: 802 241 4131
Project Mgr: Erik Urch

Invoice To: Erik Urch
1 Elm St #3
Waterbury VT 05676

P.O No.: 08-223948.00 Quote/RQN: Extreme

Project No: 08-223948.00
Site Name: Poplawski
Location: Rutland State: VT
Sampler(s): Katrina Mattice

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

List Preservative Code below: 2

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

G= Grab C=Compsite

QA/QC Reporting Notes:
* additional charges may appply

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

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		Analysis: X8260 -VOCs							Check if chlorinated
SC12236-01	Water-basement	9/3/15	0951	G	GW	3					X							[ ]
																		[ ]
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Relinquished by:	Received by:	Date:	Time:	Temp °C
Katrina Mattice	[signature]	9/3/15	1700	Observed 3.8
[signature]	UPS	9/8/15	1700	Correction Factor 0
UPS	AA	9/9/15 AA 9/9	11:05	Corrected 3.8
				IR ID # 02

[ ] EDD format:
[x] E-mail to: eurch@ecsconsult.com

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

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS StoreÂ®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, UPS Alliances (Office DepotÂ® or StaplesÂ®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
THE UPS STORE
112 S MAIN ST
STOWE ,VT 05672

FOLD HERE

AMY BETH CONNELL
8024344500
ECS WATERBURY
1 ELM STREET
WATERBURY VT 05676

35 LBS 1 OF 1

SHIP TO:
LAB
413 789 9018
SPECTRUM ANALYTICAL
11 ALMGREN DRIVE
AGAWAM MA 01001-3831

MA 011 9-06

UPS NEXT DAY AIR 1
TRACKING #: 1Z F31 7E5 01 9837 4973

BILLING: F/C BILL RECEIVER

Location Reference: 0008
Project Number: samples

CS 17.5.41. WNTNV50 66.0A 07/2015

APPENDIX B

BORING LOGS/MONITORING WELL CONSTRUCTION DETAILS

1 Elm Street #3 (802) 241-4131
Waterbury, Vermont 05676 (802) 244-6894 - fax

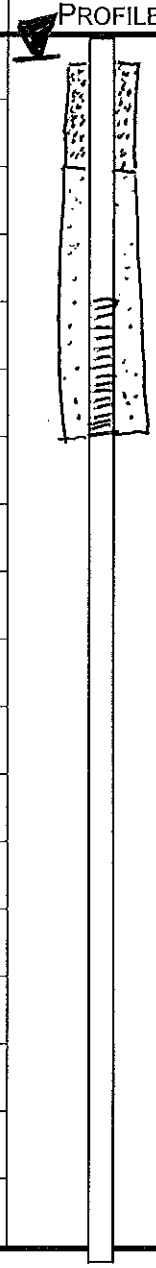
BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/11/2015
Job Number:	08-223948.01

Well Depth:	15	Boring Depth:		ECS Representative:	KM
Depth to Water (during drilling):				Drilling Company:	Platform Drilling
Screen Diameter:	1"	Depth:	10-15		
Screen Type/Size:	20 slot PVC			Sampling Method:	
Riser Diameter:	1"	Depth:	0.5-10	Reference Point (RP):	MW-15
Riser Type/Size:	PVC			Elevation of RP:	602.78 Ft MSL
Remarks:	TOIC				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5			Refer to SB-17	
5-10				
10-15				
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile



Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
AND	33-50%	<2	Very soft	0-4	Very loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium stiff	10-30	Medium dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very stiff	>50	Very dense
		>30	Hard		

Notes:

PID used: Thermo Model 580B

ECS
1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

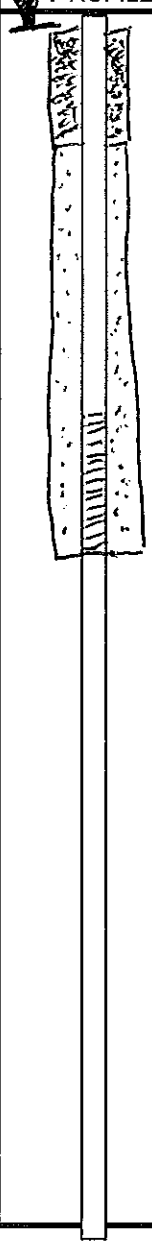
BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/11/2015
JOB NUMBER:	08-223948.01

WELL DEPTH:	20	BORING DEPTH:		ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Platform Drilling
SCREEN DIAMETER:	1"	DEPTH:	15-20		
SCREEN TYPE/SIZE:	20 slot PVC			SAMPLING METHOD:	
RISER DIAMETER:	1"	DEPTH:	0.5-15	REFERENCE POINT (RP):	MW-1D
RISER TYPE/SIZE:	PVC			ELEVATION OF RP:	602.84 Ft MSL
REMARKS:					TOC

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5			Refer to SB-17	
5-10				
10-15				
15-20				
			End of Sampling = ___ feet Well set @ ___ feet	

WELL PROFILE



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

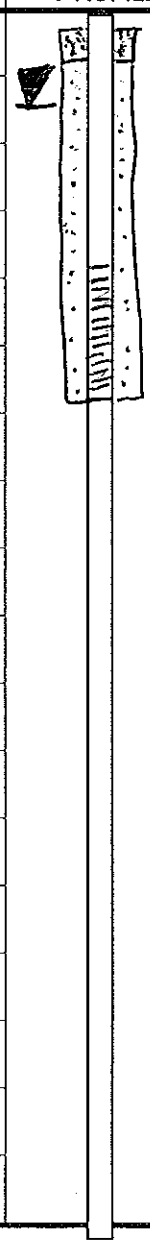
BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/11/2015
JOB NUMBER:	06-223 PB.01

WELL DEPTH:	14	BORING DEPTH:		ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Platform Drilling
SCREEN DIAMETER:	1"	DEPTH:	9-14		
SCREEN TYPE/SIZE:	20 Slot PVC			SAMPLING METHOD:	
RISER DIAMETER:	1"	DEPTH:	0.5-9	REFERENCE POINT (RP):	MW-23
RISER TYPE/SIZE:	PVC			ELEVATION OF RP:	607.48 Ft MSL
REMARKS:					TTPIC

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5			Refer to SB-8	
5-10				
10-15				
			End of Sampling = ___ feet Well set @ ___ feet	

WELL PROFILE



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Thermo Model 580B

1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

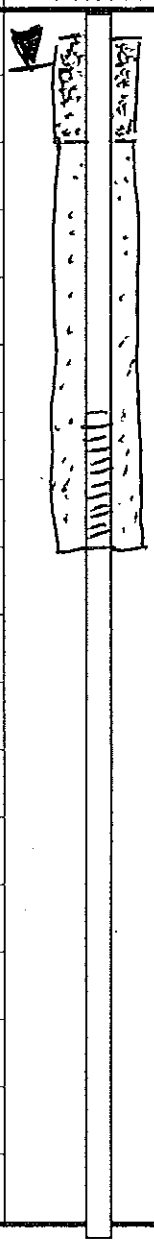
BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/4/2015
JOB NUMBER:	08-223948.01

WELL DEPTH:	20	BORING DEPTH:		ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Platform Drilling
SCREEN DIAMETER:	1"	DEPTH:	15-20		
SCREEN TYPE/SIZE:	20 slot PVC			SAMPLING METHOD:	
RISER DIAMETER:	1"	DEPTH:	0.5-15	REFERENCE POINT (RP):	MW-2D
RISER TYPE/SIZE:	PVC			ELEVATION OF RP:	607.54 ft MSL
REMARKS:					

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5			Refer to SB-8	
5-10				
10-15				
15-20				
			End of Sampling = ___ feet Well set @ ___ feet	

WELL PROFILE



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

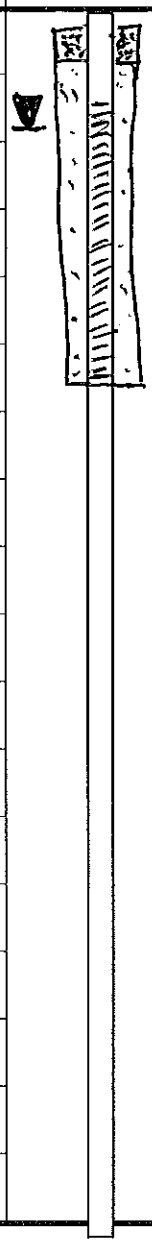
BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland, VT
INSTALLATION DATE:	9/11/2015
JOB NUMBER:	08-223948.01

WELL DEPTH:	13	BORING DEPTH:		ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Platform Drilling
SCREEN DIAMETER:	1"	DEPTH:	3-13		
SCREEN TYPE/SIZE:	20 Slot PVC			SAMPLING METHOD:	
RISER DIAMETER:	1"	DEPTH:	0.5-3	REFERENCE POINT (RP):	MW-3
RISER TYPE/SIZE:	PVC			ELEVATION OF RP:	610.72 FT MSL
REMARKS:	TOIC				

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5			refer to SB-2	
5-10				
10-15				
			End of Sampling = ___ feet Well set @ ___ feet	

WELL PROFILE



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Thermo Model 580B

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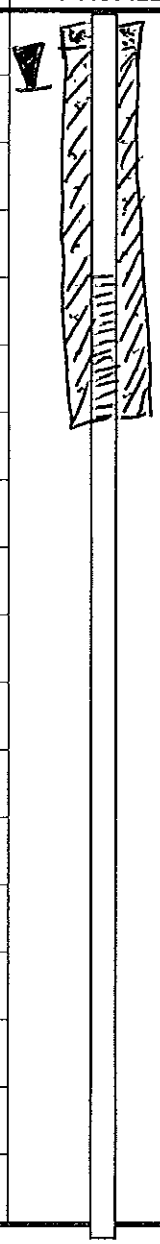
BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland, VT
Installation Date:	9/15/15
Job Number:	08-223948.01

Well Depth:	15	Boring Depth:		ECS Representative:	KM
Depth to Water (during drilling):				Drilling Company:	Platform Drilling
Screen Diameter:	1"	Depth:	10-15		
Screen Type/Size:	20 slot PVC			Sampling Method:	
Riser Diameter:	1"	Depth:		Reference Point (RP):	MW-4
Riser Type/Size:	0.5-10			Elevation of RP:	604.38 FT MSL
Remarks:	TOC				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5			Refer to SB-20	
5-10				
10-15				
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile



Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)		Notes:
AND	33-50%	<2	Very Soft	0-4	Very Loose	
SOME	20-33%	2-4	Soft	4-10	Loose	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	Medium Stiff	10-30	Medium Dense	
TRACE	0-10%	8-15	Stiff	30-50	Dense	
		15-30	Very Stiff	>50	Very Dense	
		>30	Hard			

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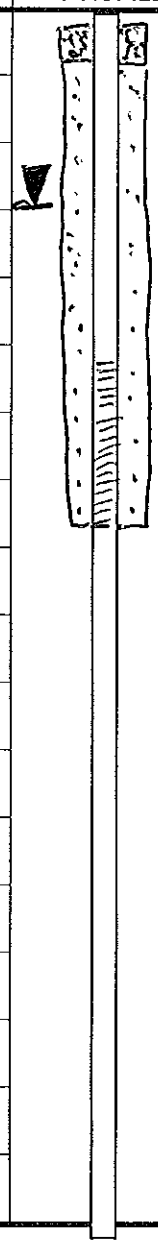
BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/15/15
Job Number:	08-223948.01

Well Depth:	18	Boring Depth:		ECS Representative:	KM
Depth to Water (during drilling):				Drilling Company:	Platform Drilling
Screen Diameter:	1"	Depth:	13-18		
Screen Type/Size:	20 slot PVC			Sampling Method:	
Riser Diameter:	1"	Depth:	0.5-13	Reference Point (RP):	MW-5
Riser Type/Size:	PVC			Elevation of RP:	610.74 FTMSL
Remarks:	TOIC				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5			Refer to SB-15	
5-10				
10-15				
15-20				
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile



Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
and	33-50%	<2	very soft	0-4	very loose
some	20-33%	2-4	soft	4-10	loose
little	10-20%	4-8	medium stiff	10-30	medium dense
trace	0-10%	8-15	stiff	30-50	dense
		15-30	very stiff	>50	very dense
		>30	hard		

Notes:

PID used: Thermo Model 580B

1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/15/15
JOB NUMBER:	08-223948.01

WELL DEPTH:	10.8	BORING DEPTH:		ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Platform Drilling
SCREEN DIAMETER:	1"	DEPTH:	5.8-10.8		
SCREEN TYPE/SIZE:	20 slot PVC			SAMPLING METHOD:	
RISER DIAMETER:	1"	DEPTH:	0.5-5.8	REFERENCE POINT (RP):	MW-6
RISER TYPE/SIZE:	PVC			ELEVATION OF RP:	609.84 FT MSL
REMARKS:	TOIC -				

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5			refer to SB-1 &	
			SB-3	
5-10				
10-15				
			End of Sampling = ___ feet Well set @ ___ feet	

LEGEND
- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Thermo Model 580B

1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

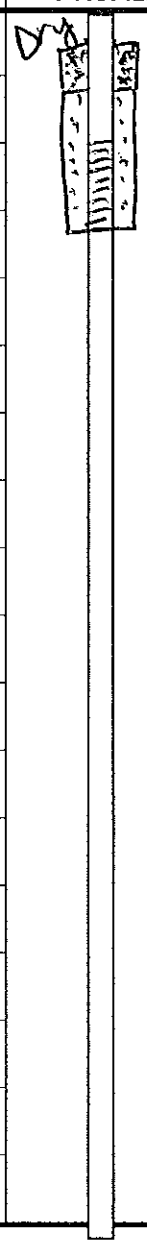
BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/15/15
JOB NUMBER:	08-223948.01

WELL DEPTH:	8.5	BORING DEPTH:		ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Platform Drilling
SCREEN DIAMETER:	1"	DEPTH:	5-8.5		
SCREEN TYPE/SIZE:	20 slot PVC			SAMPLING METHOD:	
RISER DIAMETER:	1"	DEPTH:	0.5-5	REFERENCE POINT (RP):	MW-7
RISER TYPE/SIZE:	0.5-5			ELEVATION OF RP:	617.44 Ft MSL
REMARKS:				TOIC	

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5			refer to SB-7	
5-10				
			End of Sampling = ___ feet Well set @ ___ feet	

WELL PROFILE



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

ecs
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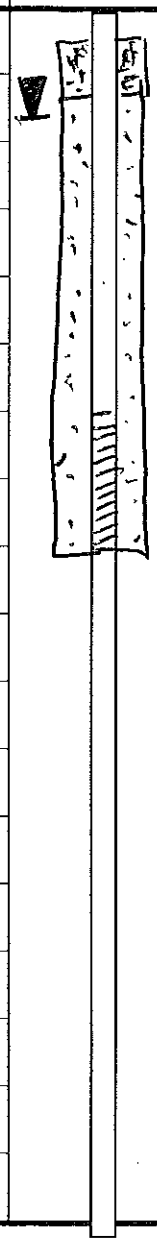
BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/15/2015
Job Number:	08-223948.01

Well Depth:	20	Boring Depth:		ECS Representative:	KM
Depth to Water (during drilling):				Drilling Company:	Platform Drilling
Screen Diameter:	1"	Depth:	15-20		
Screen Type/Size:	20 slot PVC			Sampling Method:	
Riser Diameter:	1"	Depth:	0.5-15	Reference Point (RP):	MW-8
Riser Type/Size:	PVC			Elevation of RP:	598.94 FTMSL
Remarks:	TOIC				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5			Refer to SB-12	
5-10				
10-15				
15-20				
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile



Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

Blow count (cohesive soils)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

Blow count (granular soils)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

PID used: Thermo Model 580B

ECS
1 Elm Street #3 (802) 241-4131
Waterbury, Vermont 05676 (802) 244-6894 - fax

BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/8/15
Job Number:	08-223948.00

Well Depth:	7 ft	Boring Depth:	10 ft	ECS Representative:	KM / EU
Depth to Water (during drilling):	6 ft			Drilling Company:	Stone Environmental
Screen Diameter:	1/2	Depth:	6-7 ft		
Screen Type/Size:	20 slot			Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-1
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)	Well Profile	Legend
0-5		3	11"- brown C-F silty	0.0		Concrete
			sand w/ trace gravel			Native Material
			3" Black F gravel w/	0.0		Bentonite
			trace C-F sand			Filter Sand
			1'9" Brown clay w/ some silt med plasticity (moist)	0.0		Riser
5-10		30"	2" cobble	6.8		Screen
	6-7		24" Brown grey clay w/ ~~[illegible]~~ med plasticity	671	▽ @ 6 ft	Water Level
			some F-gravel & silt			
			4" grey bedrock (moist)	290		
		refusal	@ 9 ft			
			End of Sampling = ___ feet Well set @ ___ feet			

Proportions used	Blow count (cohesive soils)		Blow count (granular soils)		Notes:
AND 33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME 20-33%	2-4	SOFT	4-10	LOOSE	PID used: Thermo Model 580B
LITTLE 10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE 0-10%	8-15	STIFF	30-50	DENSE	
	15-30	VERY STIFF	>50	VERY DENSE	
	>30	HARD			

ECS
1 Elm Street #3 (802) 241-4131
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BORING / WELL IDENTIFICATION:

Site Name:	Piplawski
Site Location:	Rutland VT
Installation Date:	9/8/15
Job Number:	08-223948.00

Well Depth:	10 ft	Boring Depth:	13.5 ft	ECS Representative:	KM / EH
Depth to Water (during drilling):	6 ft			Drilling Company:	Stone Environmental
Screen Diameter:	1/2	Depth:	9-10 ~~12-13~~		
Screen Type/Size:	Slot 20			Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-2
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		42"	11" Brown c-f sand	1.0
			21" Brown clay med plasticity some silt	0.4
			10" Moist Brown clay w/ Fine gravel & silt	0.2
5-10	9-10	30"	30" Brown clay & silt w/ some F gravel & trace ~~gravel~~ cobble (wet)	0.2
10-13.5		35"	25" Brown silt w F gravel & C-F sand (wet)	7.7
	13		10" Stained black silt w F gravel & C-F sand (wet)	1018
refusal @ 13.5 ft				

End of Sampling = ___ feet
Well set @ ___ feet

Well Profile: ▽ @ 6 ft

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:
PID used: Thermo Model 580B

1 Elm Street #3 (802) 241-4131
Waterbury, Vermont 05676 (802) 244-6894 - fax

BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/8/15
Job Number:	08-223948.00

Well Depth:	9	Boring Depth:	11 ft	ECS Representative:	JM/EU
Depth to Water (during drilling):	8 ft			Drilling Company:	Stone Environmental
Screen Diameter:	1/2	Depth:	8-9		
Screen Type/Size:	20 Slot			Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-3
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		34"	5" brown C-F sand w/ trace gravel	0.1
			29" moist brown silt w/ some F sand, trace gravel	0.4
5-10	8	42"	40" moist brown silt w/ some M-F gravel & F-sand	0.5
	8-9		2" weathered cobble	
10-15		12"	refusal @ 11 ft	
			12" wet F gravel w/ some silt	0.8

End of Sampling = ___ feet
Well set @ ___ feet

Well Profile: ▽ @ 8 ft

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)	
AND	33-50%	<2	Very Soft	0-4	Very Loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium Stiff	10-30	Medium Dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very Stiff	>50	Very Dense
		>30	Hard		

Notes:
PID used: Thermo Model 580B

ECS
1 Elm Street #3 (802) 241-4131
Waterbury, Vermont 05676 (802) 244-6894 - fax

BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/8/15
Job Number:	08-223948.00

Well Depth:		Boring Depth:		ECS Representative:	KM / EU
Depth to Water (during drilling):				Drilling Company:	Stone Environmental
Screen Diameter:		Depth:			
Screen Type/Size:				Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-4
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5	3	40"	Brown F sand w/ trace gravel	0.2
			refusal @ 4 ft	
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)	
AND	33-50%	<2	Very Soft	0-4	Very Loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium Stiff	10-30	Medium Dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very Stiff	>50	Very Dense
		>30	Hard		

Notes:

PID used: Thermo Model 580B

1 Elm Street #3 (802) 241-4131
Waterbury, Vermont 05676 (802) 244-6894 - fax

BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/8/15
Job Number:	08-223948.00

Well Depth:		Boring Depth:		ECS Representative:	KM / EN
Depth to Water (during drilling):				Drilling Company:	Stone Environmental
Screen Diameter:		Depth:			
Screen Type/Size:				Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-5
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5	3	13"	13" Brown m-f poorly graded sand w/ trace gravel	0.1
			refusal @ 3 ft	
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)		Notes:
AND	33-50%	<2	Very Soft	0-4	Very Loose	
SOME	20-33%	2-4	Soft	4-10	Loose	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	Medium Stiff	10-30	Medium Dense	
TRACE	0-10%	8-15	Stiff	30-50	Dense	
		15-30	Very Stiff	>50	Very Dense	
		>30	Hard			

ECS
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BORING / WELL IDENTIFICATION:

Site Name:	Pop Junski
Site Location:	Rutland VT
Installation Date:	918115
Job Number:	08-223948.00

Well Depth:		Boring Depth:		ECS Representative:	km
Depth to Water (during drilling):				Drilling Company:	Stone Environmental
Screen Diameter:		Depth:			
Screen Type/Size:				Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-6
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		31"	31" brown fill - M-F poorly graded sand	0.1
5-10		1"	1" Brown fill same as above - cobble in foot -	0.0
10-15	11	10"	10" Brown moist silt w/ some F-sand trace gravel	0.3
			refusal @ 12ft	
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Thermo Model 580B

ECS
1 ELM STREET #3 (802) 241-4131
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BORING / WELL IDENTIFICATION:

SITE NAME:	Piplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/9/15
JOB NUMBER:	08-223948.00

WELL DEPTH:		BORING DEPTH:		ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Stone Environmental
SCREEN DIAMETER:		DEPTH:			
SCREEN TYPE/SIZE:				SAMPLING METHOD:	Geoprobe 6610DT
RISER DIAMETER:		DEPTH:		REFERENCE POINT (RP):	SB-7
RISER TYPE/SIZE:				ELEVATION OF RP:	
REMARKS:					

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5		33"	7" fill material - poorly graded brown M-F sand	0.0
			8" brown C-F sand w/ some gravel & trace clay	0.0
			4" brown F sand w/ some gravel	0.0
			14" brown clayey sand slight black staining trace gravel	0.0
5-10		25"	12" Brown silty sand	0.0
			3" black M-F gravel	0.1
	8'		10" moist-wet sandy silt w/ some M-F gravel	0.0
			refusal @ 8.5 ft	
			End of Sampling = ___ feet Well set @ ___ feet	

WELL PROFILE: ▽ @ 8 ft

LEGEND: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

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BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/9/15
Job Number:	08-223948.00

Well Depth:	15	Boring Depth:	20	ECS Representative:	Km
Depth to Water (during drilling):	7			Drilling Company:	Stone Environmental
Screen Diameter:	1/2"	Depth:	14-15		
Screen Type/Size:	20 slot			Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-8
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		17"	6" asphalt	
			11" Brown poorly graded M-F sand w/ trace clay & F gravel	0.0
5-10		27"	10" same as above	0.0
			17" moist-wet silty gravel	0.0
10-15	14-15'	38"	38" wet same as above	0.0
15-20		42"	42" wet same as above	0.0

Well Profile: 7 ft

End of Sampling = ___ feet
Well set @ ___ feet

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
AND	33-50%	<2	Very soft	0-4	Very loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium stiff	10-30	Medium dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very stiff	>50	Very dense
		>30	Hard		

Notes:
PID used: Thermo Model 580B

1 ELM STREET #3 (802) 241-4131
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BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/9/15
JOB NUMBER:	08-223948.00

WELL DEPTH:	6	BORING DEPTH:	9	ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):		5		DRILLING COMPANY:	Stone Environmental
SCREEN DIAMETER:	1/2"	DEPTH:	5-6		
SCREEN TYPE/SIZE:	20 slot	Stainless Steel		SAMPLING METHOD:	Geoprobe 6600DT
RISER DIAMETER:		DEPTH:		REFERENCE POINT (RP):	SB-9
RISER TYPE/SIZE:				ELEVATION OF RP:	
REMARKS:					

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE
0-5		28"	28" moist brown poorly graded m-F sand w/ trace clay	0.0	
5-10	5-6'	26"	6" wet gravely silt w/ some F-sand	3.1	
	8'		24" gray stained silty gravel (petro odor)	289	▷@ 5 ft
			6" weathered bedrock	8.4	
			Refusal @ 9 ft		
			End of Sampling = ___ feet Well set @ ___ feet		

LEGEND: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

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BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/9/15
JOB NUMBER:	08-223948.00

WELL DEPTH:	15	BORING DEPTH:	25	ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):				DRILLING COMPANY:	Stone Environmental
SCREEN DIAMETER:	1/2"	DEPTH:	14-15		
SCREEN TYPE/SIZE:	20 slot stainless steel			SAMPLING METHOD:	Geoprobe 6610DT
RISER DIAMETER:		DEPTH:		REFERENCE POINT (RP):	SB-10
RISER TYPE/SIZE:				ELEVATION OF RP:	
REMARKS:					

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5		23"	23" moist poorly graded brown m-F sand w/ some gravel	0.0
5-10		22"	22" same as above	0.0
10-15	14-15	31"	31" same as above	0.0
15-20		48"	48" wet gravelly silt	0.0
20-25		13"	13" same as above	0.0

WELL PROFILE: ▽ 15 ft

LEGEND: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

End of Sampling = ___ feet
Well set @ ___ feet

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Thermo Model 580B

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BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	09/09/2015
Job Number:	08-223948.00

Well Depth:	4.5	Boring Depth:	4.5	ECS Representative:	KM
Depth to Water (during drilling):	4			Drilling Company:	Stone Environmental
Screen Diameter:	1/2"	Depth:	3.5-4.5		
Screen Type/Size:	.20 slot stainless steel			Sampling Method:	Geoprobe 66100T
Riser Diameter:		Depth:		Reference Point (RP):	SB-11
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		33"	30" poorly graded f-sand	0.0
			w/ trace gravel, Brown & moist	
	3.5-4.5		3" bedrock weathered	▽ 4ft
	4	Refusal @ 4.5ft		

End of Sampling = ___ feet
Well set @ ___ feet

Well Profile

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

Blow count (cohesive soils)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

Blow count (granular soils)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

PID used: Thermo Model 580B

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BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Portland VT
Installation Date:	9/9/15
Job Number:	08-223948.00

Well Depth:	18	Boring Depth:	20	ECS Representative:	VM
Depth to Water (during drilling):	14			Drilling Company:	Stone Environmental
Screen Diameter:	1/2 in	Depth:	17-18		
Screen Type/Size:	20 slot	Stainless steel		Sampling Method:	Geoprobe Geoprobe
Riser Diameter:		Depth:		Reference Point (RP):	SB-12
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		30"	10" Fill material brown	0.0
			F-sand, poorly graded	
			20" moist M-F brown	0.0
			Sand w/ some gravel	
5-10		42"	42" same as above	0.0
10-15	~~14-15~~ 15	45"	45" wet same as above	0.0
15-20	17-18	43"	43" same as above	0.0
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile: 14 ft

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)	
AND	33-50%	<2	Very Soft	0-4	Very Loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium Stiff	10-30	Medium Dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very Stiff	>50	Very Dense
		>30	Hard		

Notes:

PID used: Thermo Model 580B

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BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/10/15
Job Number:	08-223948.00

Well Depth:		Boring Depth:		ECS Representative:	KM/ME
Depth to Water (during drilling):				Drilling Company:	Stone Environmental
Screen Diameter:		Depth:			
Screen Type/Size:				Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-13
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		36"	36" Brown poorly graded Fine sand	0.0
5-10		6"	6" Brown w/ Black stainings poorly graded F sand	0.7
	Refusal @ 6 ft			
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
AND	33-50%	<2	Very soft	0-4	Very loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium stiff	10-30	Medium dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very stiff	>50	Very dense
		>30	Hard		

Notes:

PID used: Thermo Model 580B

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BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/10/15
Job Number:	08-223948.00

Well Depth:		Boring Depth:		ECS Representative:	KM/ME
Depth to Water (during drilling):				Drilling Company:	Stone Environmental
Screen Diameter:		Depth:			
Screen Type/Size:				Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-14
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		18"	Brown poorly graded f-sand & silt	0.0
	Refusal		@ 5 ft	
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
and	33-50%	<2	very soft	0-4	very loose
some	20-33%	2-4	soft	4-10	loose
little	10-20%	4-8	medium stiff	10-30	medium dense
trace	0-10%	8-15	stiff	30-50	dense
		15-30	very stiff	>50	very dense
		>30	hard		

Notes:
PID used: Thermo Model 580B

ECS

1 ELM STREET #3 (802) 241-4131
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BORING / WELL IDENTIFICATION: Page 1 of 1

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/10/15
JOB NUMBER:	08-223948.00

WELL DEPTH:	17	BORING DEPTH:	20	ECS REPRESENTATIVE:	KM/ME
DEPTH TO WATER (DURING DRILLING):	~8 ft			DRILLING COMPANY:	Stone Environmental
SCREEN DIAMETER:	1/2"	DEPTH:	16-17		
SCREEN TYPE/SIZE:	20 slot Stainless Steel			SAMPLING METHOD:	Geoprobe 6610DT
RISER DIAMETER:		DEPTH:		REFERENCE POINT (RP):	SB-15
RISER TYPE/SIZE:				ELEVATION OF RP:	
REMARKS:	Continued SB-15 on 9/15/15 to go to refusal.				

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5		33"	4" Fill material	0.0
			12" brown poorly graded F-sand, trace C-sand	0.0
			17" moist same as above	0.0
5-10		36"	8" moist brown F-sand w/ some c-gravel	0.1
			28" wet same as above	0.0
10-15		48"	12" brown M-F sand (dry)	0.0
			33" Wet brown F-sand w/ some gravel	0.0
			3" black stained coarse gravel	0.7
15-20		53"	2" brown F-sand w/ some gravel	1.0
	16		15" wet black stained c-gravel	115.2
	17		11" Wet brown F-Sand w/ some F-gravel	309
			16" wet brown silty sand ~~1" weathered cobble~~	102
			9" ~~same as above~~ wet brown silty sand some coarse sand	0.2
9/15 20-25	— Refusal @ 18ft. Tried 2			
	locations next to original hole,			
	Tip of Rod had grey weathered cobble w/ petro odor!			

End of Sampling = ___ feet
Well set @ ___ feet

WELL PROFILE: ▽ @ 8ft; ▽ @ 16ft

LEGEND: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

PID used: Thermo Model 580B

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BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/10/15
Job Number:	08-223948.00

Well Depth:		Boring Depth:		ECS Representative:	KM/ME
Depth to Water (during drilling):				Drilling Company:	Stone Environmental
Screen Diameter:		Depth:			
Screen Type/Size:				Sampling Method:	Geoprobe
Riser Diameter:		Depth:		Reference Point (RP):	SB-16
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		28"	28" Brown F-sand w/ trace F-gravel	0.0
5-10		34"	8" same as above	
			19" weathered cobble	
			4" Brown C-F sand w/ Some F gravel	0.0
			3" weathered cobble	
		Refusal @ 10 ft		
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
AND	33-50%	<2	Very soft	0-4	Very loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium stiff	10-30	Medium dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very stiff	>50	Very dense
		>30	Hard		

Notes:

PID used: Thermo Model 580B

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BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/10/15
Job Number:	08-223948.00

Well Depth:	19	Boring Depth:	20	ECS Representative:	KM / MLE
Depth to Water (during drilling):	10			Drilling Company:	Stone Environmental
Screen Diameter:	1/2"	Depth:	~~17-18~~ 18-19		
Screen Type/Size:	20 slot Stainless Steel			Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-17
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		30"	18" Brown fine sand with some gravel	0.0
			3" weathered Coble	
			9" Fine sand	
5-10		29"	29" moist ~~fine~~ brown fine sand with trace fine gravel	0.2
10-15		36"	2" moist Brown fine sand	0.0
			5" weathered Coble	
			27" moist Brown fine sand	
			2" weathered Coble	
15-20	18	35"	22" wet ~~grey~~ brown fine sand with some gravel	0.2
			13" wet grey stained fine to coarse gravel with Petro odor	0.6
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile: ▽ 10 ft

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
AND	33-50%	<2	Very soft	0-4	Very loose
SOME	20-33%	2-4	Soft	4-10	Loose
LITTLE	10-20%	4-8	Medium stiff	10-30	Medium dense
TRACE	0-10%	8-15	Stiff	30-50	Dense
		15-30	Very stiff	>50	Very dense
		>30	Hard		

Notes:

PID used: Thermo Model 580B

ECS
1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/10/15
JOB NUMBER:	08-223948.00

WELL DEPTH:	19	BORING DEPTH:	20	ECS REPRESENTATIVE:	KM/ME
DEPTH TO WATER (DURING DRILLING):	10			DRILLING COMPANY:	Stone Environmental
SCREEN DIAMETER:	1/2"	DEPTH:	18-19		
SCREEN TYPE/SIZE:	20 slot	Stainless Steel		SAMPLING METHOD:	Geoprobe 66LOPT
RISER DIAMETER:		DEPTH:		REFERENCE POINT (RP):	SB-18
RISER TYPE/SIZE:				ELEVATION OF RP:	
REMARKS:					

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0-5		38"	7" top soil - brown F-sand	
			18" Brown F-sand w/ some F-gravel	
			3" grey c-sand	0.1
			10" Brown F-sand w/ some F-gravel	
5-10		48"	48" moist brown sand	0.2
			w/ some F-gravel.	
10-15		48"	48" moist Brown sand w/ some F-gravel	0.1
15-20	18-19	21"	22" wet Brown fine sand w/ some F-gravel	0.0
			6" weathered cobble	
			13" Brown fine sand with some fine gravel	
			End of Sampling = ___ feet Well set @ ___ feet	

WELL PROFILE: ▽ @ 10 ft

LEGEND: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	PID used: Thermo Model 580B
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

ECS
1 Elm Street #3 (802) 241-4131
Waterbury, Vermont 05676 (802) 244-6894 - fax

BORING / WELL IDENTIFICATION:

Site Name:	Poplawski
Site Location:	Rutland VT
Installation Date:	9/15/15
Job Number:	08-223948.00

Well Depth:		Boring Depth:	8	ECS Representative:	KM
Depth to Water (during drilling):				Drilling Company:	Stone Environmental
Screen Diameter:		Depth:			
Screen Type/Size:				Sampling Method:	Geoprobe 6610DT
Riser Diameter:		Depth:		Reference Point (RP):	SB-19
Riser Type/Size:				Elevation of RP:	
Remarks:					

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0-5		15"	15" Brown poorly graded	0.0
			F-sand w/ some	
			F-gravel	
5-10		26"	8" black stained F-sand	0.0
			w/ some F-gravel (asphalt shards)	
			18" Brown moist poorly graded F-sand w/ some F-gravel	0.0
		Refusal @ 8 ft		
			End of Sampling = ___ feet Well set @ ___ feet	

Well Profile: ▽ 6 ft

Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions used		Blow count (cohesive soils)		Blow count (granular soils)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Thermo Model 580B

1 ELM STREET #3 (802) 241-4131
WATERBURY, VERMONT 05676 (802) 244-6894 - FAX

BORING / WELL IDENTIFICATION:

SITE NAME:	Poplawski
SITE LOCATION:	Rutland VT
INSTALLATION DATE:	9/15/15
JOB NUMBER:	08-223948.00

WELL DEPTH:	15	BORING DEPTH:	15	ECS REPRESENTATIVE:	KM
DEPTH TO WATER (DURING DRILLING):	10			DRILLING COMPANY:	Stone Environmental
SCREEN DIAMETER:	2 inch	DEPTH:	10-15		
SCREEN TYPE/SIZE:	20 slot PVC			SAMPLING METHOD:	Geoprobe 6610DT
RISER DIAMETER:	2 inch	DEPTH:	0-10	REFERENCE POINT (RP):	SB-20
RISER TYPE/SIZE:	2 inch PVC			ELEVATION OF RP:	
REMARKS:					

DEPTH (IN FEET)	SAMPLE DEPTH	RECOVERY (FT)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE
0-5		26"	12" moist brown clay w/	0.0	
			trace F-sand and F-gravel		
			3" weathered C-gravel	0.0	
			11" moist brown F-sand w/ some F-gravel	0.0	
5-10		33"	8" same as above	0.0	
			9" grey stained C-F sand, well graded	0.0	
			16" moist silty gravel	0.0	
10-15		27"	27" wet brown silt w/	0.0	▽ 10 ft
			some F-gravel		
			End of Sampling = ___ feet Well set @ ___ feet		

LEGEND: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Thermo Model 580B