GeoInsight®
Environmental Strategy & Engineering

February 9, 2018 GeoInsight Project 7877-001

William Murphy, Director
Town of Sudbury
Board of Health
275 Old Lancaster Road
Sudbury, MA 01776

Re: Focused Subsurface Investigation
Melone Property
North Road
Sudbury, Massachusetts

Dear Mr. Murphy:

GeoInsight, Inc. (GeoInsight) is pleased to provide this Focused Subsurface Investigation Report (the Report) for the Melone property located on North Road in Sudbury, Massachusetts (the Property). The Report was completed in general accordance with our Scope of Work for Focused Subsurface Investigation (SOW) dated October 12, 2017. The Report summarizes the results of subsurface investigation activities conducted at the Property in November and December 2017.

BACKGROUND

The Property consists of an approximately 46.6-acre irregularly shaped parcel purchased by the Town of Sudbury (the Town) in 1990. The central and southwest portions of the Property are located in Sudbury. The northeast portion of the Property is located in the neighboring town of Concord. The properties to the west and northwest are the location of the former Sperry/Unisys facility which is a documented Commonwealth of Massachusetts hazardous materials release site. The Property is contiguous with an approximately 6.9-acre parcel of land to the east that is owned by the Sudbury Water District. The primary access to the Melone Property is through the Sudbury Water District parcel.

GeoInsight was retained by the Town to conduct an environmental data review associated with the Melone Property. The results of the data review were presented to the Town in a Technical Memorandum dated June 9, 2016. The Technical Memorandum provided the Town with a general summary of the Sperry/Unisys Site, including a summary of constituents of concern (COCs) released, environmental media and areas impacted, and remedial activities. The memorandum also included summary information associated with Sudbury Water District and

GeoInsight, Inc.
186 Granite Street, 3rd Floor, Suite A
Manchester, NH 03101-2643
Tel (603) 314-0820
Fax (603) 314-0821
www.geoinsight.com

GeoInsight, Inc.
One Monarch Drive, Suite 201
Littleton, MA 01460-1440
Tel (978) 679-1600
Fax (978) 679-1601
www.geoinsight.com

GeoInsight, Inc.
200 Court Street, 2nd Floor
Middletown, CT 06457-3341
Tel (860) 894-1022
Fax (860) 894-1023
www.geoinsight.com

Town of Concord municipal water supply wells that are located near the Property. The Technical Memorandum also included redevelopment considerations to assist the Town in evaluating Property reuse options.

SCOPE OF WORK

The SOW was based upon information obtained during our focused review of conditions associated with the Sperry/Unisys Site, possible environmental considerations associated with future redevelopment of the Property, and discussions with representatives of the Town. We identified the following possible environmental considerations associated with future redevelopment of the Property.

Soil Related:

- The non-gravel-mined western portion of the Melone Property was historically occupied by an orchard. Shallow soil located in this portion of the property may contain residues from historical application of pesticides/herbicides.

Groundwater Related:

- There are no historical or current data for groundwater at the Melone Property. Available information suggests that impacts associated with the Sperry/Unisys Site Gravel Pit Area plume extended onto the north border and possibly the north portion of the Melone Property (i.e., the portion located in Concord). Because of their location, topography, and presence of wetlands, the areas that may have been historically impacted by the Gravel Pit Area plume are not likely the portions of the Melone Property to be considered for redevelopment.

- Available information suggests that impacts associated with the Sperry/Unisys Leach Field Area plume may extend onto the southwest and southern portions of the Melone Property.

- Historical chlorinated solvents that were detected in samples of deep overburden and shallow bedrock groundwater near Sudbury Water District Well No. 5 appeared to extend northward onto the Sudbury Water District land that abuts the east side of the Melone Property. The extent of these impacts was not delineated.

Subsurface investigation activities performed on properties near the Melone Property indicate that soils consist of sand and gravel on top of a thin layer of glacial till and then bedrock. Depth to bedrock is variable but is generally within 20 to 50 feet of the ground surface. Depth to water varies depending upon topography but is generally within 5 to 10 feet of the ground surface.

The southern portion of the Property that abuts North Road and the southwest conservation portion of the Property are heavily forested and are characterized by significant topographical

relief. Therefore, the SOW focused the groundwater characterization activities focused on the more readily accessible central and north portions of the Property.

SCOPE OF WORK

The following tasks were completed as part of the focused subsurface investigation at the Property.

DIG-SAFE ACTIVITIES

On November 21, 2017, GeoInsight conducted a Property visit to pre-mark the locations of proposed soil borings at the Property, and to look for and evaluate the presence/condition of historical monitoring wells that had previously been installed near the Property. GeoInsight identified two pre-existing monitoring wells (MW-2 and monitoring well cluster 91-S8 and 91-S9). Monitoring well MW-2 was installed in 1989 near the southwest corner of the Sudbury Water District property, adjacent to the Wagner property, as part of a subsurface investigation to evaluate chlorinated solvent impacts in Sudbury Well No. 5. Monitoring well cluster 91-S8 and 91-S9 was installed in 1991 off-Property to the southeast of the Sudbury Water District property as part of historical investigations for the Sperry/Unisys Site. The locations of these wells are indicated on Figure 2. Other near-Property historical monitoring wells were not found and are presumed destroyed.

IN-SITU GROUNDWATER SAMPLING

On November 30 and December 1, 2017, GeoInsight completed an in-situ groundwater sampling program using a direct-push Geoprobe® drill rig and Geoprobe® SP-16 groundwater sampling system to collect shallow and deep overburden groundwater samples at the Property. The borings were advanced at locations around the perimeter of the gravel pit area and one location in the middle portion of the center of the gravel pit. Geoprobe® borings GP-1, GP-2, GP-5, GP-6, and GP-7 were advanced to total depths of 56, 52, 68, 56, and 62 feet below ground surface (bgs), respectively, where refusal was encountered. Shallow refusal, presumably on bedrock, was encountered in borings GP-3 and GP-4 at a depth of 12 feet bgs. Recoverable groundwater was not encountered in the overburden soils at these two locations. Bedrock outcrops were visible at the ground surface in the southwestern portion of the gravel pit area, extending from GP-3 in the south to GP-4 in the north (Figure 2).

Shallow groundwater samples were collected from borings GP-1, GP-2, GP-5, GP-6, and GP-7 near the water table, and deep samples were collected at the anticipated overburden-till/bedrock interface (i.e., anticipated to be Geoprobe® refusal). Groundwater sample collection depths are presented on Table 1. The locations of the borings are depicted on Figure 2. Groundwater was generally encountered in the borings at depths ranging from approximately 12 feet (GP-4; at the bedrock surface) to 39 feet (GP-7) bgs.

In-situ groundwater samples were collected from the borings using a peristaltic pump and dedicated polyethylene tubing (all locations except GP-7) or dedicated polyethylene tubing and a

check valve (location GP-7). The samples were delivered under chain of custody to Eurofins Spectrum Analytical of Agawam, Massachusetts and analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260. In addition, the deep groundwater samples from borings GP-2, GP-6, and GP-7 were also analyzed for 1,4-dioxane using USEPA Method 8270 and Selective Ion Monitoring (SIM).

Trichloroethene (TCE) was detected in the deep groundwater sample collected from boring GP-6 (56 feet) at an estimated concentration of 0.55 micrograms per liter (µg/L; approximately equivalent to parts per billion). An estimated concentration, which was J-flagged in the analytical report, indicates that TCE was detected at a concentration greater than the analytical method's detection limit (MDL), but below the laboratory's reportable detection limit (RDL). The estimated concentration of TCE is below potentially applicable Massachusetts Contingency Plan (MCP) Method 1 Risk Characterization standards. VOCs and 1,4-dioxane were not detected in the other discrete groundwater samples. Groundwater analytical data are summarized in Table 1. A copy of the laboratory analytical report is attached.

On December 6, 2017, at the request of the Town, GeoInsight collected a groundwater sample from historical monitoring well MW-2 using a peristaltic pump and dedicated polyethylene tubing. Monitoring well MW-2 was constructed of 40 feet of 1.5-inch screen set at a depth of 65 feet bgs. At the time we collected the groundwater sample the screen had apparently silted-in to a depth of approximately 52 feet bgs. The depth to water in monitoring well MW-2 on December 6, 2017 was 24.51 feet bgs. The groundwater sample was collected at a depth of approximately 50 feet bgs.

The sample was delivered under chain of custody to Eurofins Spectrum Analytical and analyzed for VOCs by USEPA Method 8260. Acetone (a common laboratory contaminant) and methyl tert-butyl ether (MTBE: a gasoline additive) were detected in the groundwater sample collected from monitoring well MW-2 at estimated concentrations of 1.83 and 0.34 µg/L, respectively. Acetone was also detected in the laboratory's quality control method blank at a concentration of 1.09 µg/L. Other VOCs were not detected in the sample. Groundwater analytical data are summarized in Table 1. A copy of the laboratory analytical report is attached.

SHALLOW SOIL SAMPLING

On November 30, 2017, GeoInsight collected six shallow soil samples (SS-1 to SS-6) at depths of up to 2 feet bgs in the upland unmined area in the western portion of the Property to evaluate whether residual pesticides/herbicides are present in shallow soil. The samples were collected using a stainless-steel hand auger and composited in the field in a stainless-steel container. Two additional shallow soil samples (SS-7 and SS-8) were collected from the floor of the gravel pit area. Soil samples SS-1 to SS-8 were analyzed for total arsenic (a common constituent of historical pesticides/herbicides) by USEPA Method 6010C. Soil samples SS-1, SS-3, SS-5, and SS-7 were also analyzed for pesticides/herbicides by USEPA Methods 8081B and 8151A, respectively.

Arsenic was detected in each of the samples at concentrations ranging from 2.84 to 20.8 milligrams per kilogram (mg/kg; approximately equivalent to parts per million). The concentration of arsenic detected in soil sample SS-2 (20.8 mg/kg) slightly exceeds the MCP Reportable Concentration (RC) for arsenic of 20 mg/kg. Pesticides and herbicides were not detected in soil samples SS-1, SS-3, SS-5, and SS-7 at concentrations above laboratory reporting limits. Soil analytical results are summarized in Table 2.

Soil boring and soil sampling locations were identified using Global Positioning System (GPS) techniques and are depicted on Figure 2.

SUMMARY

A summary of the results of the focused subsurface investigation is provided below:

Groundwater:

- on November 30 and December 1, 2017, a total of seven Geoprobe® borings were advanced at the Property to depths ranging from 12 to 68 feet bgs;

- Groundwater samples were collected from borings GP-1, GP-2, GP-5, GP-6, and GP-7 near the water table, and a deep sample was collected at the anticipated overburden-till/bedrock interface. The samples were analyzed for VOCs. The deep groundwater samples from borings GP-2, GP-6, and GP-7 were also analyzed for 1,4-dioxane;

- TCE was detected in the groundwater sample from boring GP-6 (56 feet) at an estimated concentration of 0.55 µg/L (an order of magnitude lower than the potentially applicable MCP Method 1 Risk Characterization standard). VOCs and 1,4-dioxane were not detected in the other nine groundwater samples; and

- Acetone (a common laboratory contaminant) and MTBE (a gasoline additive) were detected in the groundwater sample from historical monitoring well MW-2 at estimated concentrations (two to three orders of magnitude less than potentially applicable MCP Method 1 Risk Characterization standards). Other VOCs were not detected in the groundwater sample from historical monitoring well MW-2.

Soil:

- on November 30, 2017, GeoInsight collected six shallow soil samples (SS-1 to SS-6) at depths of up to 2 feet bgs in the upland unmined area in the western portion of the Property to evaluate whether residual pesticides/herbicides/arsenic are present in shallow soil. Two additional samples (SS-7 and SS-8) of shallow soil were collected from the floor of the gravel pit;

- arsenic was detected in the samples at concentrations ranging from 2.84 to 20.8 mg/kg;

- pesticides and herbicides were not detected in the soil samples; and

- the concentration of arsenic detected in soil sample SS-2 (20.8 mg/kg) slightly exceeds the MADEP RC for arsenic of 20 mg/kg.

CONCLUSIONS

VOCs were not detected in 9 of the 11 samples collected at the Property from both shallow and deep groundwater. A low estimated concentration of TCE was detected in the deep groundwater sample from GP-6 (56 feet) located near the northeastern border of the sand pit and may be attributable to residual impacts from the historical Sperry/Unisys Gravel Pit Area plume.

The discrete groundwater samples were collected from the portions of the Property more likely to be developed. The groundwater conditions documented by the November/December 2017 sampling events do not represent a condition that would be an impediment to Property development.

Arsenic was detected in one shallow soil sample (SS-2) at a concentration that slightly exceeds the MCP RC for arsenic of 20 mg/kg. The sample was collected in the non-gravel-mined southwestern portion of the Melone Property that was historically occupied by an orchard. The presence of arsenic in soil appears to be attributable to natural geologic conditions, or the historical use of arsenic-based pesticides within the former orchard. The detection and distribution of arsenic in the six soil samples did not exhibit a distinct pattern or define a discrete release area (i.e., MCP hot spot).

In accordance with the MCP the following conditions apply to the arsenic detected in on-Property soil and represent conditions that do not require notification to the Massachusetts Department of Environmental Protection (MADEP):

- arsenic in an area documented by the U.S. Geological Survey (USGS) or in other scientific literature as an area of elevated arsenic measured in soil or groundwater that
  (a) is consistently present in the environment at and in the vicinity of the sampling location;
  (b) is solely attributable to natural geologic or ecologic conditions; and
  (c) has not been mobilized or transferred to another environmental medium or increased in concentration in an environmental medium as a result of anthropogenic activities.

- the presence of arsenic in soil resulting from the application of pesticides in a manner consistent with their labelling (i.e., potential historical orchard maintenance activities).

Information reviewed by GeoInsight indicates that the Property is located in close proximity to geologic areas of Massachusetts where elevated concentrations of arsenic are present in groundwater and mapped bedrock units. In addition, the concentrations of arsenic detected in Property soils are within the range of concentrations (0 to 70 mg/kg) that are considered to be

consistent with natural soils by the USGS and USEPA. As such, the arsenic detected in Property soil is exempt from notification under the MCP.

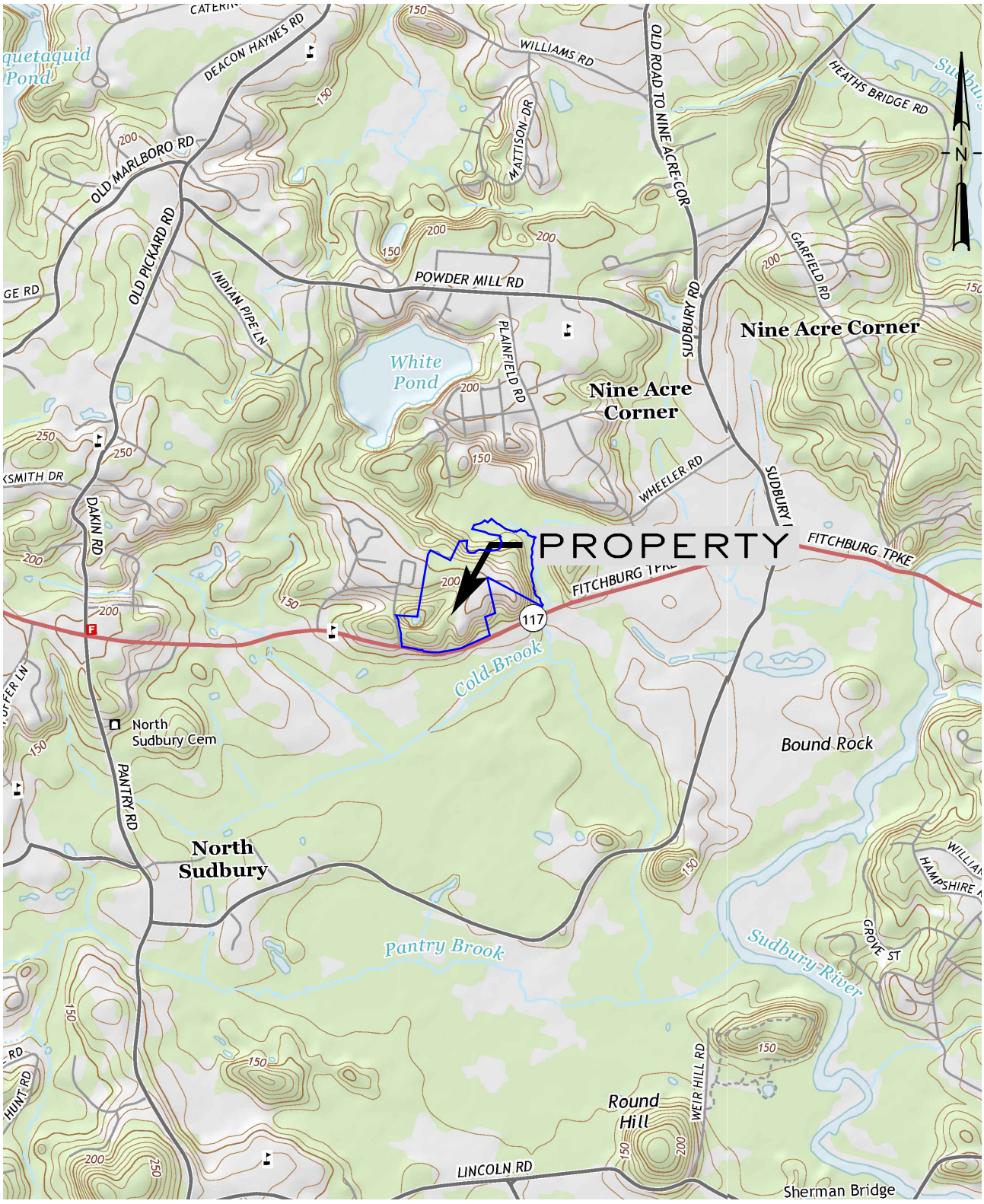
If you have questions regarding the information presented in this Report or regarding conditions identified at the Melone Property, please contact Joel J. Trifilo or Michael J. Webster at (978) 679-1600.

Sincerely,
GEOINSIGHT, INC.

Joel J. Trifilo, P. G., L.S.P.
Senior Geologist

Michael J. Webster, P.G., L.S.P.
Principal

Attachments:
Figure 1 Property Locus
Figure 2 Property Plan
Table 1 Groundwater Analytical Results
Table 2 Soil Analytical Results
Laboratory Analytical Reports



SOURCE:

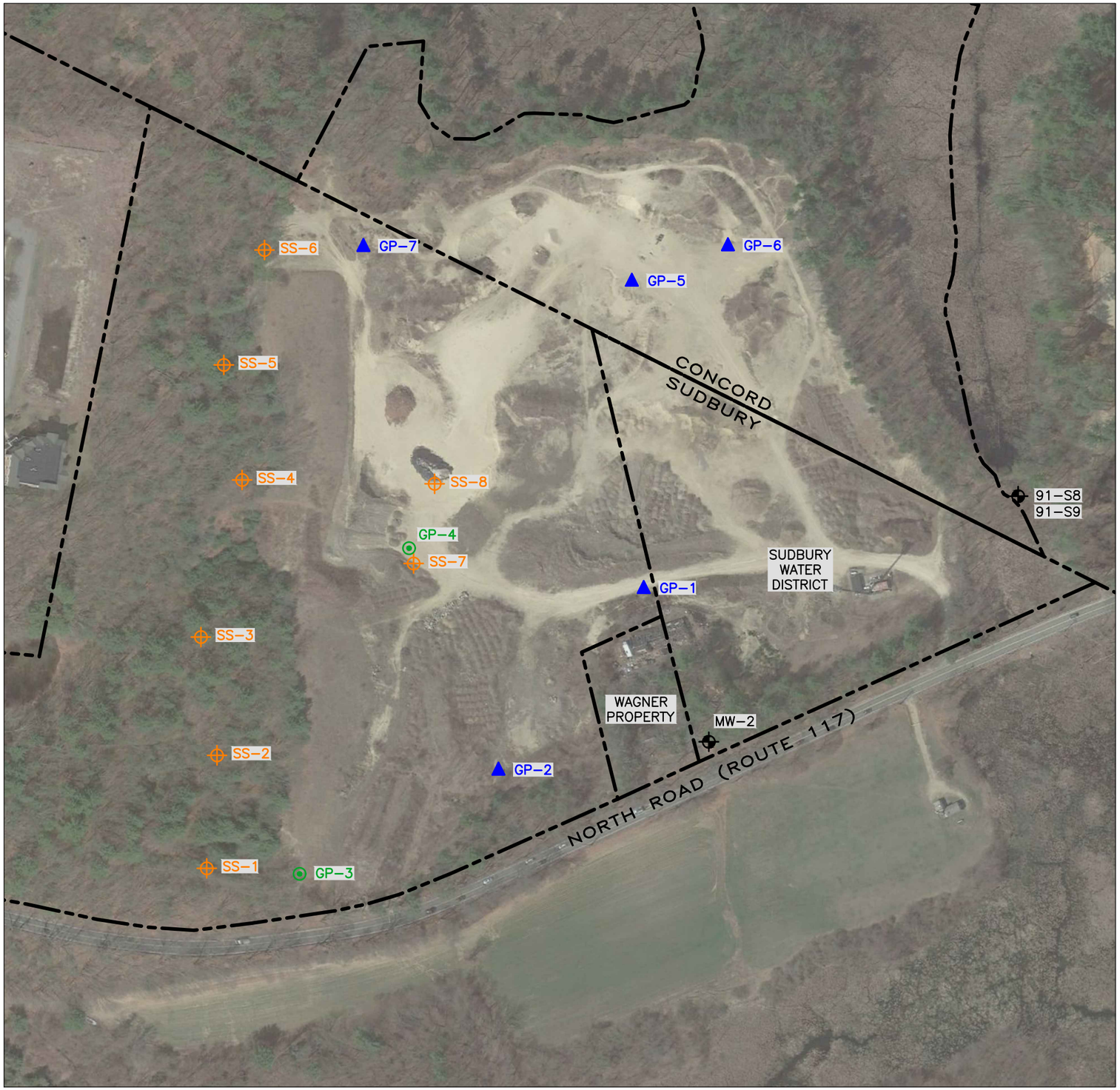
USGS MAYNARD, MASSACHUSETTS
TOPOGRAPHIC QUADRANGLE 2015
CONTOUR INTERVAL: 10 FEET

0 2000 4000
APPROX. SCALE IN FEET

CLIENT: TOWN OF SUDBURY			
PROJECT: MELONE PROPERTY, NORTH ROAD SUDBURY, MASSACHUSETTS			
TITLE: PROPERTY LOCUS			
DESIGNED: JER	DRAWN: JER	CHECKED: CAS	APPROVED: KDT
SCALE: 1" = 2000'	DATE: 12/21/17	FILE NO.: 7877-LOCUS	PROJECT NO.: 7877-000
			FIGURE NO.: 1

GeoInsight
Practical in Nature

PLOT DATE: 1-8-18
FILE: \\geomao\MAO_Projects\7877 - Melone Property Sudbury\figures\7877-LOCUS2.dwg



- N -

LEGEND

MW-2	HISTORICAL MONITORING WELL (MW-2 INSTALLED IN 1989, 91-S8 AND 91-S9 INSTALLED IN 1991)
SS-1	SHALLOW SOIL SAMPLES
GP-1	DISCRETE GROUNDWATER SAMPLES
GP-3	NO SAMPLE COLLECTED DUE TO SHALLOW REFUSAL

NOTES:

1. THIS FIGURE WAS BASED UPON AN AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH DATED APRIL 14, 2017.

0 200 400

APPROX. SCALE IN FEET

CLIENT: TOWN OF SUDBURY				
PROJECT: MELONE PROPERTY, NORTH ROAD SUDBURY, MASSACHUSETTS				
TITLE: PROPERTY PLAN				
DESIGNED: CAS	DRAWN: STM	CHECKED: JJT	APPROVED: JJT	GeoInsight Practical in Nature
SCALE: 1" = 200'	DATE: 01/08/17	FILE NO.: 7877D001	PROJECT NO.: 7877-000	FIGURE NO.: 2

PLOT DATE: 1-8-18
FILE: C:\Users\stmckee\appdata\local\temp\AcPublish_9496\7877D001.dwg

TABLE 1
GROUNDWATER ANALYTICAL DATA
MELONE PROPERTY
NORTH ROAD
SUDBURY, MASSACHUSETTS

Sample Identification:	GP-1 (56')	GP-1 (20')	GP-2 (52')*	GP-2 (29')	GP-5 (68')	GP-5 (34')	GP-6 (56')*	GP-6 (39')	GP-7 (62')*	GP-7 (48')	MW-2	MCP Method 1 Risk Characterization Standards		
Sample Depth (feet bgs):	56	20	52	29	68	34	56	39	62	48	50	GW-1	GW-2	GW-3
Sample Date:	11/30/2017	11/30/2017	11/30/2017	11/30/2017	11/30/2017	11/30/2017	12/1/2017	12/1/2017	12/1/2017	12/1/2017	12/6/2017			
Volatile Organic Compounds (VOCs) via United States Environmental Protection Agency Method 8260C.														
Trichloroethene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	**0.55 (J)**	ND (1)	ND (1)	ND (1)	ND (1)	**5**	**5**	**5,000**
Acetone	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	**1.83 (J)**	**6,300**	**50,000**	**50,000**
Methyl tert-butyl ether	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	**0.34 (J)**	**70**	**50,000**	**50,000**
Other VOCs analyzed by United States Environmental Protection Agency Method 8260C were not detected.														
***1,4-Dioxane analyzed via USEPA Method 8270D SIM.**														
1,4-Dioxane	--	--	ND (0.20)	--	--	--	ND (0.20)	--	ND (0.20)	--	--	**0.3**	**6,000**	**50,000**

NOTES:

1. Results in micrograms per liter (µg/L), which is approximately equivalent to parts per billion (ppb).
2. ND(x) = constituent not detected at laboratory Reportable Detection Limit (RDL) noted in parenthesis.
3. BOLD values exceed the Method Detection Limit (MDL).
4. J = Detected above the MDL but below the RDL; therefore, result is an estimated concentration.
5. * = Samples analyzed for 1,4-dioxane.
6. USEPA = United States Environmental Protection Agency.
7. SIM = Selected Ion Monitoring.
8. bgs = Below ground surface.
9. MCP Method 1 Risk Characterization standards are included for comparison purposes only.
10. '-- = Not analyzed.

TABLE 2
SOIL ANALYTICAL DATA
MELONE PROPERTY
NORTH ROAD
SUDBURY, MASSACHUSETTS

Sample Identification:	**MCP Reportable Concentrations S-1**	**SS-1 (0-2)***	**SS-2 (0-2)**	**SS-3 (0-2)***	**SS-4 (0-2)**	**SS-5 (0-2)***	**SS-6 (0-2)**	**SS-7 (0-2)***	**SS-8 (0-2)**
Sample Depth (feet bgs):		**0-2**	**0-2**	**0-2**	**0-2**	**0-2**	**0-2**	**0-2**	**0-2**
Sample Date:		**11/30/2017**	**11/30/2017**	**11/30/2017**	**11/30/2017**	**11/30/2017**	**11/30/2017**	**11/30/2017**	**11/30/2017**
Pesticides analyzed via USEPA Method 8081B were not detected.									
Herbicides analyzed via USEPA Method 8151A were not detected.									
Arsenic via USEPA Method 6010C									
Arsenic	**20**	**3.9**	**20.8**	**8.37**	**9.58**	**3.45**	**16**	**2.84**	**2.89**

NOTES:

1. * = Samples were analyzed for pesticides/herbicides.
2. Results reported in milligrams per kilogram (mg/kg).
3. USEPA = United States Environmental Protection Agency.
4. MCP = Massachusetts Contingency Plan.
5. Bolded values exceed laboratory reporting limits.
6. Shaded values exceed MCP Reportable Concentration RCS-1.
7. bgs = Below ground surface.

eurofins | Spectrum Analytical

☐ Final Report
☑ Revised Report

Report Date:
06-Feb-18 14:27

Laboratory Report
SC42065

GeoInsight, Inc.
1 Monarch Drive, Suite 201
Littleton, MA 01460
Attn: Joel Trifilo

Project: Melone Property - North Rd - Sudbury, MA
Project #: 7877

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 # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Dawn Wojcik
Laboratory Director

Dawn E Wojcik

Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts 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 40 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 Eurofins Spectrum Analytical, Inc. 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 Eurofins 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.

Sample Summary

Work Order: SC42065

Project: Melone Property - North Rd - Sudbury, MA

Project Number: 7877

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC42065-01	GP-1 (56')	Ground Water	30-Nov-17 09:55	04-Dec-17 14:20
SC42065-02	GP-1 (20')	Ground Water	30-Nov-17 10:45	04-Dec-17 14:20
SC42065-03	GP-2 (52')	Ground Water	30-Nov-17 11:45	04-Dec-17 14:20
SC42065-04	GP-2 (29')	Ground Water	30-Nov-17 12:45	04-Dec-17 14:20
SC42065-05	GP-5 (68')	Ground Water	30-Nov-17 15:55	04-Dec-17 14:20
SC42065-06	GP-5 (34')	Ground Water	30-Nov-17 16:40	04-Dec-17 14:20
SC42065-07	GP-6 (56')	Ground Water	01-Dec-17 09:12	04-Dec-17 14:20
SC42065-08	GP-6 (39')	Ground Water	01-Dec-17 10:20	04-Dec-17 14:20
SC42065-09	GP-7 (62')	Ground Water	01-Dec-17 12:25	04-Dec-17 14:20
SC42065-10	GP-7 (48')	Ground Water	01-Dec-17 13:55	04-Dec-17 14:20

MassDEP Analytical Protocol Certification Form

Laboratory Name: Eurofins Spectrum Analytical, Inc.	**Project #:** 7877
Project Location: Melone Property - North Rd - Sudbury, MA	**RTN:**
This form provides certifications for the following data set:	SC42065-01 through SC42065-10
Matrices: Ground Water	

CAM Protocol

✓ 8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
✓ 8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for Presumptive Certainty status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes	No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes	No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes	No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes	No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes Yes	No No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes	No

Responses to questions G, H and I below are required for Presumptive Certainty status

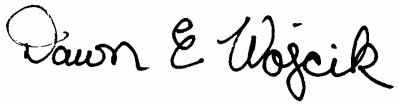
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes	✓ No

Data User Note: ***Data that achieve Presumptive Certainty status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.***

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes	✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes	✓ No

All negative responses are addressed in a case narrative on the cover page of this report.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.



Dawn E. Wojcik
Laboratory Director
Date: 2/6/2018

CASE NARRATIVE:

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

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

The samples were received 2.5 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. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

February 6, 2018 Report Revision Case Narrative:

This report is being re-issued to report the data to the MDL with J & U flags per client request.

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

SW846 8260C

Calibration:

1711046

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,2-Dibromo-3-chloropropane
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
cis-1,3-Dichloropropene
Naphthalene
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene

SW846 8260C

Calibration:

1711046

This affected the following samples:

1720373-BLK1
1720373-BS1
1720373-BSD1
GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')
S710225-ICV1
S710663-CCV1

Laboratory Control Samples:

1720373 BS/BSD

1,1,2,2-Tetrachloroethane percent recoveries (118/154) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

1,2,3-Trichlorobenzene percent recoveries (132/138) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

SW846 8260C

Laboratory Control Samples:

1720373 BS/BSD

1,2,3-Trichloropropane percent recoveries (123/155) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

Bromomethane percent recoveries (62/65) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

Hexachlorobutadiene percent recoveries (136/125) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

Naphthalene percent recoveries (111/139) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

SW846 8260C

Laboratory Control Samples:

1720373 BS/BSD

o-Xylene percent recoveries (112/138) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

1720373 BSD

1,1,2,2-Tetrachloroethane RPD 27% (20%) is outside individual acceptance criteria.

1,2,3-Trichloropropane RPD 23% (20%) is outside individual acceptance criteria.

Naphthalene RPD 22% (20%) is outside individual acceptance criteria.

o-Xylene RPD 21% (20%) is outside individual acceptance criteria.

Styrene RPD 21% (20%) is outside individual acceptance criteria.

trans-1,4-Dichloro-2-butene RPD 22% (20%) is outside individual acceptance criteria.

Samples:

S710663-CCV1

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

1,2,3-Trichloropropane (22.8%)
Bromomethane (-38.1%)
Chloromethane (-22.8%)
Hexachlorobutadiene (36.1%)
Methylene chloride (-23.9%)

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

1,2,3-Trichlorobenzene (32.2%)
1,2-Dibromo-3-chloropropane (20.6%)
4-Isopropyltoluene (24.2%)

SW846 8260C

Samples:

S710663-CCV1

This affected the following samples:

1720373-BLK1
1720373-BS1
1720373-BSD1
GP-1 (20')
GP-1 (56')
GP-2 (29')
GP-2 (52')
GP-5 (34')
GP-5 (68')
GP-6 (39')
GP-6 (56')
GP-7 (48')
GP-7 (62')

Sample Acceptance Check Form

Client:	GeoInsight, Inc. - Littleton, MA
Project:	Melone Property - North Rd - Sudbury, MA / 7877
Work Order:	SC42065
Sample(s) received on:	12/4/2017

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 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: SC42065-07 **Client ID:** GP-6 (56')

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Trichloroethene	0.55	J	1.00	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
GP-1 (56')	7877	Ground Water	30-Nov-17 09:55	04-Dec-17
SC42065-01				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-1 (56')	7877	Ground Water	30-Nov-17 09:55	04-Dec-17
SC42065-01				

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*117*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-1 (20')	7877	Ground Water	30-Nov-17 10:45	04-Dec-17
SC42065-02				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-1 (20') SC42065-02	7877	Ground Water	30-Nov-17 10:45	04-Dec-17

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*100*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-2 (52')	7877	Ground Water	30-Nov-17 11:45	04-Dec-17
SC42065-03				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-2 (52') SC42065-03	7877	Ground Water	30-Nov-17 11:45	04-Dec-17

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*			*70-130 %*			"	"	"	"	"	

Subcontracted Analyses

Subcontracted Analyses
Prepared by method 411966-SW8

*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-2 (52') SC42065-03	7877	Ground Water	30-Nov-17 11:45	04-Dec-17

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Subcontracted Analyses													
Subcontracted Analyses Prepared by method 411966-SW8													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
123-91-1	1,4-dioxane	< 0.20		ug/l	0.20	0.20	1	SW8270DSIM	06-Dec-17	08-Dec-17 06:40	M-CT007	411966A	
Surrogate recoveries:													
17647-74-4	*% 1,4-dioxane-d8*	*93*			*30-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-2 (29')	7877	Ground Water	30-Nov-17 12:45	04-Dec-17
SC42065-04				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-2 (29')	7877	Ground Water	30-Nov-17 12:45	04-Dec-17
SC42065-04				

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-5 (68')	7877	Ground Water	30-Nov-17 15:55	04-Dec-17
SC42065-05				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-5 (68')	7877	Ground Water	30-Nov-17 15:55	04-Dec-17
SC42065-05				

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*120*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*108*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-5 (34')	7877	Ground Water	30-Nov-17 16:40	04-Dec-17
SC42065-06				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-5 (34') SC42065-06	7877	Ground Water	30-Nov-17 16:40	04-Dec-17

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*109*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-6 (56')	7877	Ground Water	01-Dec-17 09:12	04-Dec-17
SC42065-07				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-6 (56')	7877	Ground Water	01-Dec-17 09:12	04-Dec-17
SC42065-07				

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	**0.55**	J	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*101*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*			*70-130 %*			"	"	"	"	"	

Subcontracted Analyses

Subcontracted Analyses
Prepared by method 411966-SW8

*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-6 (56') SC42065-07	7877	Ground Water	01-Dec-17 09:12	04-Dec-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses Prepared by method 411966-SW8													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
123-91-1	1,4-dioxane	< 0.20		ug/l	0.20	0.20	1	SW8270DSIM	06-Dec-17	08-Dec-17 18:04	M-CT007	411966A	
Surrogate recoveries:													
17647-74-4	*% 1,4-dioxane-d8*	*85*			*30-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-6 (39')	7877	Ground Water	01-Dec-17 10:20	04-Dec-17
SC42065-08				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-6 (39')	7877	Ground Water	01-Dec-17 10:20	04-Dec-17
SC42065-08				

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*122*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-7 (62')	7877	Ground Water	01-Dec-17 12:25	04-Dec-17
SC42065-09				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-7 (62') SC42065-09	7877	Ground Water	01-Dec-17 12:25	04-Dec-17

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*108*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	

Subcontracted Analyses

Subcontracted Analyses
Prepared by method 411966-SW8

*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-7 (62') SC42065-09	7877	Ground Water	01-Dec-17 12:25	04-Dec-17

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Subcontracted Analyses													
Subcontracted Analyses Prepared by method 411966-SW8													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
123-91-1	1,4-dioxane	< 0.20		ug/l	0.20	0.20	1	SW8270DSIM	06-Dec-17	08-Dec-17 18:49	M-CT007	411966A	
Surrogate recoveries:													
17647-74-4	*% 1,4-dioxane-d8*	*87*			*30-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-7 (48')	7877	Ground Water	01-Dec-17 13:55	04-Dec-17
SC42065-10				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
67-64-1	Acetone	< 0.80	U	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GP-7 (48')	7877	Ground Water	01-Dec-17 13:55	04-Dec-17
SC42065-10				

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	07-Dec-17	08-Dec-17	GMA	1720373	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.24	U	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720373 - SW846 5030 Water MS										
Blank (1720373-BLK1)					Prepared & Analyzed: 07-Dec-17					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.53	U	µg/l	0.53						
Acetone	< 0.80	U	µg/l	0.80						
Acrylonitrile	< 0.47	U	µg/l	0.47						
Benzene	< 0.28	U	µg/l	0.28						
Bromobenzene	< 0.33	U	µg/l	0.33						
Bromochloromethane	< 0.34	U	µg/l	0.34						
Bromodichloromethane	< 0.42	U	µg/l	0.42						
Bromoform	< 0.42	U	µg/l	0.42						
Bromomethane	< 0.90	U	µg/l	0.90						
2-Butanone (MEK)	< 1.07	U	µg/l	1.07						
n-Butylbenzene	< 0.41	U	µg/l	0.41						
sec-Butylbenzene	< 0.33	U	µg/l	0.33						
tert-Butylbenzene	< 0.32	U	µg/l	0.32						
Carbon disulfide	< 0.41	U	µg/l	0.41						
Carbon tetrachloride	< 0.44	U	µg/l	0.44						
Chlorobenzene	< 0.25	U	µg/l	0.25						
Chloroethane	< 0.59	U	µg/l	0.59						
Chloroform	< 0.33	U	µg/l	0.33						
Chloromethane	< 0.37	U	µg/l	0.37						
2-Chlorotoluene	< 0.32	U	µg/l	0.32						
4-Chlorotoluene	< 0.32	U	µg/l	0.32						
1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	0.86						
Dibromochloromethane	< 0.32	U	µg/l	0.32						
1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.20						
Dibromomethane	< 0.31	U	µg/l	0.31						
1,2-Dichlorobenzene	< 0.28	U	µg/l	0.28						
1,3-Dichlorobenzene	< 0.31	U	µg/l	0.31						
1,4-Dichlorobenzene	< 0.27	U	µg/l	0.27						
Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	0.58						
1,1-Dichloroethane	< 0.32	U	µg/l	0.32						
1,2-Dichloroethane	< 0.28	U	µg/l	0.28						
1,1-Dichloroethene	< 0.69	U	µg/l	0.69						
cis-1,2-Dichloroethene	< 0.33	U	µg/l	0.33						
trans-1,2-Dichloroethene	< 0.38	U	µg/l	0.38						
1,2-Dichloropropane	< 0.29	U	µg/l	0.29						
1,3-Dichloropropane	< 0.21	U	µg/l	0.21						
2,2-Dichloropropane	< 0.42	U	µg/l	0.42						
1,1-Dichloropropene	< 0.58	U	µg/l	0.58						
cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.36						
trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.35						
Ethylbenzene	< 0.33	U	µg/l	0.33						
Hexachlorobutadiene	< 0.47	U	µg/l	0.47						
2-Hexanone (MBK)	< 0.53	U	µg/l	0.53						
Isopropylbenzene	< 0.36	U	µg/l	0.36						
4-Isopropyltoluene	< 0.28	U	µg/l	0.28						
Methyl tert-butyl ether	< 0.24	U	µg/l	0.24						
4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	0.52						
Methylene chloride	< 0.66	U	µg/l	0.66						
Naphthalene	< 0.35	U	µg/l	0.35						
n-Propylbenzene	< 0.34	U	µg/l	0.34						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720373 - SW846 5030 Water MS										
Blank (1720373-BLK1)					Prepared & Analyzed: 07-Dec-17					
Styrene	< 0.40	U	µg/l	0.40						
1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	0.38						
1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.33						
Tetrachloroethene	< 0.57	U	µg/l	0.57						
Toluene	< 0.30	U	µg/l	0.30						
1,2,3-Trichlorobenzene	< 0.38	U	µg/l	0.38						
1,2,4-Trichlorobenzene	< 0.38	U	µg/l	0.38						
1,3,5-Trichlorobenzene	< 0.30	U	µg/l	0.30						
1,1,1-Trichloroethane	< 0.51	U	µg/l	0.51						
1,1,2-Trichloroethane	< 0.33	U	µg/l	0.33						
Trichloroethene	< 0.50	U	µg/l	0.50						
Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	0.49						
1,2,3-Trichloropropane	< 0.29	U	µg/l	0.29						
1,2,4-Trimethylbenzene	< 0.36	U	µg/l	0.36						
1,3,5-Trimethylbenzene	< 0.43	U	µg/l	0.43						
Vinyl chloride	< 0.47	U	µg/l	0.47						
m,p-Xylene	< 0.38	U	µg/l	0.38						
o-Xylene	< 0.28	U	µg/l	0.28						
Tetrahydrofuran	< 1.06	U	µg/l	1.06						
Ethyl ether	< 0.37	U	µg/l	0.37						
Tert-amyl methyl ether	< 0.49	U	µg/l	0.49						
Ethyl tert-butyl ether	< 0.33	U	µg/l	0.33						
Di-isopropyl ether	< 0.29	U	µg/l	0.29						
Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	5.90						
1,4-Dioxane	< 11.4	U	µg/l	11.4						
trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	0.82						
Ethanol	< 30.9	U	µg/l	30.9						
Surrogate: 4-Bromofluorobenzene	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.0*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Dibromofluoromethane	*51.0*		µg/l		*50.0*		*102*	*70-130*		
LCS (1720373-BS1)					Prepared & Analyzed: 07-Dec-17					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.6**		µg/l		20.0		98	70-130		
Acetone	**19.6**		µg/l		20.0		98	70-130		
Acrylonitrile	**16.6**		µg/l		20.0		83	70-130		
Benzene	**21.3**		µg/l		20.0		107	70-130		
Bromobenzene	**21.2**		µg/l		20.0		106	70-130		
Bromochloromethane	**20.8**		µg/l		20.0		104	70-130		
Bromodichloromethane	**21.2**		µg/l		20.0		106	70-130		
Bromoform	**20.9**		µg/l		20.0		105	70-130		
Bromomethane	**12.4**		µg/l		20.0		62	70-130		
2-Butanone (MEK)	**20.6**		µg/l		20.0		103	70-130		
n-Butylbenzene	**20.0**		µg/l		20.0		100	70-130		
sec-Butylbenzene	**20.8**		µg/l		20.0		104	70-130		
tert-Butylbenzene	**20.7**		µg/l		20.0		103	70-130		
Carbon disulfide	**21.2**		µg/l		20.0		106	70-130		
Carbon tetrachloride	**20.8**		µg/l		20.0		104	70-130		
Chlorobenzene	**20.4**		µg/l		20.0		102	70-130		
Chloroethane	**17.0**		µg/l		20.0		85	70-130		
Chloroform	**20.4**		µg/l		20.0		102	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720373 - SW846 5030 Water MS										
LCS (1720373-BS1)						Prepared & Analyzed: 07-Dec-17				
Chloromethane	**15.4**		µg/l		20.0		77	70-130		
2-Chlorotoluene	**21.8**		µg/l		20.0		109	70-130		
4-Chlorotoluene	**22.2**		µg/l		20.0		111	70-130		
1,2-Dibromo-3-chloropropane	**24.1**		µg/l		20.0		121	70-130		
Dibromochloromethane	**22.3**		µg/l		20.0		111	70-130		
1,2-Dibromoethane (EDB)	**23.0**		µg/l		20.0		115	70-130		
Dibromomethane	**21.6**		µg/l		20.0		108	70-130		
1,2-Dichlorobenzene	**22.6**		µg/l		20.0		113	70-130		
1,3-Dichlorobenzene	**21.2**		µg/l		20.0		106	70-130		
1,4-Dichlorobenzene	**21.3**		µg/l		20.0		106	70-130		
Dichlorodifluoromethane (Freon12)	**18.7**		µg/l		20.0		93	70-130		
1,1-Dichloroethane	**20.7**		µg/l		20.0		104	70-130		
1,2-Dichloroethane	**21.8**		µg/l		20.0		109	70-130		
1,1-Dichloroethene	**17.6**		µg/l		20.0		88	70-130		
cis-1,2-Dichloroethene	**20.9**		µg/l		20.0		104	70-130		
trans-1,2-Dichloroethene	**19.8**		µg/l		20.0		99	70-130		
1,2-Dichloropropane	**21.4**		µg/l		20.0		107	70-130		
1,3-Dichloropropane	**22.3**		µg/l		20.0		112	70-130		
2,2-Dichloropropane	**19.7**		µg/l		20.0		99	70-130		
1,1-Dichloropropene	**21.2**		µg/l		20.0		106	70-130		
cis-1,3-Dichloropropene	**19.6**		µg/l		20.0		98	70-130		
trans-1,3-Dichloropropene	**19.9**		µg/l		20.0		99	70-130		
Ethylbenzene	**21.8**		µg/l		20.0		109	70-130		
Hexachlorobutadiene	**27.2**	QM9	µg/l		20.0		136	70-130		
2-Hexanone (MBK)	**22.8**		µg/l		20.0		114	70-130		
Isopropylbenzene	**21.2**		µg/l		20.0		106	70-130		
4-Isopropyltoluene	**24.8**		µg/l		20.0		124	70-130		
Methyl tert-butyl ether	**20.7**		µg/l		20.0		104	70-130		
4-Methyl-2-pentanone (MIBK)	**22.8**		µg/l		20.0		114	70-130		
Methylene chloride	**15.2**		µg/l		20.0		76	70-130		
Naphthalene	**22.3**		µg/l		20.0		111	70-130		
n-Propylbenzene	**20.8**		µg/l		20.0		104	70-130		
Styrene	**20.1**		µg/l		20.0		101	70-130		
1,1,1,2-Tetrachloroethane	**21.0**		µg/l		20.0		105	70-130		
1,1,2,2-Tetrachloroethane	**23.5**		µg/l		20.0		118	70-130		
Tetrachloroethene	**19.9**		µg/l		20.0		99	70-130		
Toluene	**21.3**		µg/l		20.0		106	70-130		
1,2,3-Trichlorobenzene	**26.4**	QC2	µg/l		20.0		132	70-130		
1,2,4-Trichlorobenzene	**20.3**		µg/l		20.0		102	70-130		
1,3,5-Trichlorobenzene	**21.5**		µg/l		20.0		108	70-130		
1,1,1-Trichloroethane	**21.1**		µg/l		20.0		105	70-130		
1,1,2-Trichloroethane	**22.3**		µg/l		20.0		112	70-130		
Trichloroethene	**20.9**		µg/l		20.0		105	70-130		
Trichlorofluoromethane (Freon 11)	**19.4**		µg/l		20.0		97	70-130		
1,2,3-Trichloropropane	**24.6**		µg/l		20.0		123	70-130		
1,2,4-Trimethylbenzene	**20.7**		µg/l		20.0		103	70-130		
1,3,5-Trimethylbenzene	**20.6**		µg/l		20.0		103	70-130		
Vinyl chloride	**16.4**		µg/l		20.0		82	70-130		
m,p-Xylene	**22.3**		µg/l		20.0		112	70-130		
o-Xylene	**22.3**		µg/l		20.0		112	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720373 - SW846 5030 Water MS										
LCS (1720373-BS1)					Prepared & Analyzed: 07-Dec-17					
Tetrahydrofuran	**23.0**		µg/l		20.0		115	70-130		
Ethyl ether	**18.4**		µg/l		20.0		92	70-130		
Tert-amyl methyl ether	**20.4**		µg/l		20.0		102	70-130		
Ethyl tert-butyl ether	**20.4**		µg/l		20.0		102	70-130		
Di-isopropyl ether	**21.1**		µg/l		20.0		105	70-130		
Tert-Butanol / butyl alcohol	**190**		µg/l		200		95	70-130		
1,4-Dioxane	**210**		µg/l		200		105	70-130		
trans-1,4-Dichloro-2-butene	**20.6**		µg/l		20.0		103	70-130		
Ethanol	**364**		µg/l		400		91	70-130		
Surrogate: 4-Bromofluorobenzene	*49.4*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.7*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Dibromofluoromethane	*50.1*		µg/l		*50.0*		*100*	*70-130*		
LCS Dup (1720373-BSD1)					Prepared & Analyzed: 07-Dec-17					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.4**		µg/l		20.0		102	70-130	4	20
Acetone	**18.4**		µg/l		20.0		92	70-130	6	20
Acrylonitrile	**14.6**		µg/l		20.0		73	70-130	13	20
Benzene	**20.8**		µg/l		20.0		104	70-130	2	20
Bromobenzene	**25.7**		µg/l		20.0		128	70-130	19	20
Bromochloromethane	**20.0**		µg/l		20.0		100	70-130	4	20
Bromodichloromethane	**20.3**		µg/l		20.0		101	70-130	5	20
Bromoform	**22.2**		µg/l		20.0		111	70-130	6	20
Bromomethane	**12.9**		µg/l		20.0		65	70-130	4	20
2-Butanone (MEK)	**21.6**		µg/l		20.0		108	70-130	5	20
n-Butylbenzene	**20.9**		µg/l		20.0		104	70-130	4	20
sec-Butylbenzene	**25.1**		µg/l		20.0		125	70-130	19	20
tert-Butylbenzene	**21.2**		µg/l		20.0		106	70-130	2	20
Carbon disulfide	**20.8**		µg/l		20.0		104	70-130	2	20
Carbon tetrachloride	**20.2**		µg/l		20.0		101	70-130	3	20
Chlorobenzene	**20.6**		µg/l		20.0		103	70-130	0.7	20
Chloroethane	**15.7**		µg/l		20.0		78	70-130	8	20
Chloroform	**19.8**		µg/l		20.0		99	70-130	3	20
Chloromethane	**15.4**		µg/l		20.0		77	70-130	0.4	20
2-Chlorotoluene	**21.6**		µg/l		20.0		108	70-130	0.9	20
4-Chlorotoluene	**21.8**		µg/l		20.0		109	70-130	2	20
1,2-Dibromo-3-chloropropane	**25.7**		µg/l		20.0		129	70-130	6	20
Dibromochloromethane	**21.8**		µg/l		20.0		109	70-130	2	20
1,2-Dibromoethane (EDB)	**22.3**		µg/l		20.0		112	70-130	3	20
Dibromomethane	**21.4**		µg/l		20.0		107	70-130	1	20
1,2-Dichlorobenzene	**24.0**		µg/l		20.0		120	70-130	6	20
1,3-Dichlorobenzene	**25.1**		µg/l		20.0		126	70-130	17	20
1,4-Dichlorobenzene	**22.2**		µg/l		20.0		111	70-130	4	20
Dichlorodifluoromethane (Freon12)	**18.7**		µg/l		20.0		94	70-130	0.2	20
1,1-Dichloroethane	**20.0**		µg/l		20.0		100	70-130	3	20
1,2-Dichloroethane	**21.4**		µg/l		20.0		107	70-130	1	20
1,1-Dichloroethene	**16.8**		µg/l		20.0		84	70-130	5	20
cis-1,2-Dichloroethene	**21.1**		µg/l		20.0		105	70-130	0.9	20
trans-1,2-Dichloroethene	**19.7**		µg/l		20.0		98	70-130	0.5	20
1,2-Dichloropropane	**20.2**		µg/l		20.0		101	70-130	5	20
1,3-Dichloropropane	**22.0**		µg/l		20.0		110	70-130	2	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720373 - SW846 5030 Water MS										
LCS Dup (1720373-BSD1)					Prepared & Analyzed: 07-Dec-17					
2,2-Dichloropropane	**18.2**		µg/l		20.0		91	70-130	8	20
1,1-Dichloropropene	**20.2**		µg/l		20.0		101	70-130	4	20
cis-1,3-Dichloropropene	**19.1**		µg/l		20.0		95	70-130	2	20
trans-1,3-Dichloropropene	**19.4**		µg/l		20.0		97	70-130	2	20
Ethylbenzene	**21.4**		µg/l		20.0		107	70-130	2	20
Hexachlorobutadiene	**25.1**		µg/l		20.0		125	70-130	8	20
2-Hexanone (MBK)	**23.9**		µg/l		20.0		119	70-130	5	20
Isopropylbenzene	**25.6**		µg/l		20.0		128	70-130	19	20
4-Isopropyltoluene	**25.8**		µg/l		20.0		129	70-130	4	20
Methyl tert-butyl ether	**20.5**		µg/l		20.0		103	70-130	1	20
4-Methyl-2-pentanone (MIBK)	**22.9**		µg/l		20.0		114	70-130	0.2	20
Methylene chloride	**17.7**		µg/l		20.0		89	70-130	15	20
Naphthalene	**27.8**	QM9, QR5	µg/l		20.0		139	70-130	22	20
n-Propylbenzene	**22.9**		µg/l		20.0		114	70-130	9	20
Styrene	**24.9**	QR2	µg/l		20.0		125	70-130	21	20
1,1,1,2-Tetrachloroethane	**21.0**		µg/l		20.0		105	70-130	0	20
1,1,2,2-Tetrachloroethane	**30.8**	QM9, QR5	µg/l		20.0		154	70-130	27	20
Tetrachloroethene	**19.8**		µg/l		20.0		99	70-130	0.5	20
Toluene	**20.6**		µg/l		20.0		103	70-130	3	20
1,2,3-Trichlorobenzene	**27.5**	QC2	µg/l		20.0		138	70-130	4	20
1,2,4-Trichlorobenzene	**20.6**		µg/l		20.0		103	70-130	1	20
1,3,5-Trichlorobenzene	**21.9**		µg/l		20.0		109	70-130	2	20
1,1,1-Trichloroethane	**19.7**		µg/l		20.0		99	70-130	7	20
1,1,2-Trichloroethane	**21.6**		µg/l		20.0		108	70-130	3	20
Trichloroethene	**20.2**		µg/l		20.0		101	70-130	3	20
Trichlorofluoromethane (Freon 11)	**17.8**		µg/l		20.0		89	70-130	8	20
1,2,3-Trichloropropane	**31.1**	QM9, QR5	µg/l		20.0		155	70-130	23	20
1,2,4-Trimethylbenzene	**20.4**		µg/l		20.0		102	70-130	1	20
1,3,5-Trimethylbenzene	**20.5**		µg/l		20.0		103	70-130	0.6	20
Vinyl chloride	**15.4**		µg/l		20.0		77	70-130	6	20
m,p-Xylene	**21.7**		µg/l		20.0		108	70-130	3	20
o-Xylene	**27.7**	QM9, QR5	µg/l		20.0		138	70-130	21	20
Tetrahydrofuran	**22.4**		µg/l		20.0		112	70-130	3	20
Ethyl ether	**17.8**		µg/l		20.0		89	70-130	3	20
Tert-amyl methyl ether	**19.4**		µg/l		20.0		97	70-130	5	20
Ethyl tert-butyl ether	**20.8**		µg/l		20.0		104	70-130	2	20
Di-isopropyl ether	**20.9**		µg/l		20.0		104	70-130	1	20
Tert-Butanol / butyl alcohol	**197**		µg/l		200		98	70-130	4	20
1,4-Dioxane	**197**		µg/l		200		98	70-130	7	20
trans-1,4-Dichloro-2-butene	**25.6**	QR2	µg/l		20.0		128	70-130	22	20
Ethanol	**378**		µg/l		400		95	70-130	4	20
Surrogate: 4-Bromofluorobenzene	*60.8*		µg/l		*50.0*		*122*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*49.3*		µg/l		*50.0*		*99*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW8270DSIM										
Batch 411966A - 411966-SW8										
BLK (BZ51277-BLK)						Prepared: 06-Dec-17 Analyzed: 08-Dec-17				
1,4-dioxane	**ND**		ug/l	0.25				-		
Surrogate: % 1,4-dioxane-d8	*83*		ug/l		*5*		*91*	*30-130*		
LCS (BZ51277-LCS)						Prepared: 06-Dec-17 Analyzed: 08-Dec-17				
1,4-dioxane	**2.168**		ug/l	0.25	2.5		87	30-130		20
Surrogate: % 1,4-dioxane-d8	*4.376*		ug/l		*5*		*88*	*30-130*		
LCSD (BZ51277-LCSD)						Prepared: 06-Dec-17 Analyzed: 08-Dec-17				
1,4-dioxane	**2.278**		%	%	2.5		91	30-130	4.5	20
Surrogate: % 1,4-dioxane-d8	*4.568*		%		*5*		*91*	*30-130*		
MS (BZ51277-MS)			**Source: SC42065-03**			Prepared: 06-Dec-17 Analyzed: 08-Dec-17				
1,4-dioxane	**2.213**		ug/l	0.25	2.5	BRL	89	30-130		20
Surrogate: % 1,4-dioxane-d8	*4.546*		ug/l		*5*		*91*	*30-130*		
MSD (BZ51277-MSD)			**Source: SC42065-03**			Prepared: 06-Dec-17 Analyzed: 08-Dec-17				
1,4-dioxane	**2.251**		%	%	2.5	BRL	90	30-130	1.1	20
Surrogate: % 1,4-dioxane-d8	*4.787*		%		*5*		*96*	*30-130*		

Notes and Definitions

J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
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.
QR5	RPD out of acceptance range.
U	Analyte included in the analysis, but not detected at or above the MDL.
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.

SC42065

eurofins | Spectrum Analytical

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 30 days unless otherwise instructed.

Report To: GeoInsight, Inc.
1 Monarch Dr. Suite 201
Littleton MA 01460

Telephone #: 978-679-1600
Project Mgr: Joel Trifilo

Invoice To: See Report to

P.O No.: _____ Quote #: _____

Project No: 7877
Site Name: Melone Property
Location: North Rd., Sudbury State: MA
Sampler(s): LCG

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= Ice 12= _____

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

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	List Preservative Code below: 2,11	11	Analysis: VOC	Analysis: 1,4-Dioxane	Check if chlorinated
SC42065-01	GP-1 (56')	11/30/17	09:55	G	GW	3						X		
02	GP-1 (20')		10:45											
03	GP-2 (52')		11:45				2						X	
04	GP-2 (29')		12:45											
05	GP-5 (68')		15:55											
06	GP-5 (34')		16:40											
07	GP-6 (56')	12/1/17	09:12				2						X	
08	GP-6 (39')		10:20											
09	GP-7 (62')		12:25				2						X	
10	GP-7 (48')		13:55											

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? [X] 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]	DSR	12/1/17	15:00
DSR	[signature]	12/4/17	1420

Temp °C: Observed 2.5; Correction Factor 0; Corrected 2.5; IR ID # 1

[ ] EDD format:
[X] E-mail to: jjtrifilo@geoinc.com

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

Batch Summary

1720373

Volatile Organic Compounds

1720373-BLK1
1720373-BS1
1720373-BSD1
SC42065-01 (GP-1 (56'))
SC42065-02 (GP-1 (20'))
SC42065-03 (GP-2 (52'))
SC42065-04 (GP-2 (29'))
SC42065-05 (GP-5 (68'))
SC42065-06 (GP-5 (34'))
SC42065-07 (GP-6 (56'))
SC42065-08 (GP-6 (39'))
SC42065-09 (GP-7 (62'))
SC42065-10 (GP-7 (48'))

411966A

Subcontracted Analyses

BZ51277-BLK
BZ51277-LCS
BZ51277-LCSD
BZ51277-MS
BZ51277-MSD
SC42065-03 (GP-2 (52'))
SC42065-07 (GP-6 (56'))
SC42065-09 (GP-7 (62'))

S710225

Volatile Organic Compounds

S710225-CAL1
S710225-CAL2
S710225-CAL3
S710225-CAL4
S710225-CAL5
S710225-CAL6
S710225-CAL7
S710225-CAL8
S710225-CAL9
S710225-CALA
S710225-CALB
S710225-ICV1
S710225-LCV1
S710225-LCV2
S710225-TUN1

S710663

Volatile Organic Compounds

S710663-CCV1
S710663-TUN1

eurofins | Spectrum Analytical

☐ Final Report
☑ Revised Report

Report Date:
06-Feb-18 15:42

Laboratory Report
SC42356

GeoInsight, Inc.
1 Monarch Drive, Suite 201
Littleton, MA 01460
Attn: Joel Trifilo

Project: Melone Property - North Rd - Sudbury, MA
Project #: 7877

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 # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Kimberly Laplante
Quality Assurance Manager

Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts 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 15 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 Eurofins Spectrum Analytical, Inc. 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 Eurofins 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.

Sample Summary

Work Order: SC42356

Project: Melone Property - North Rd - Sudbury, MA

Project Number: 7877

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC42356-01	MW-2	Ground Water	06-Dec-17 14:10	11-Dec-17 14:15

MassDEP Analytical Protocol Certification Form

Laboratory Name: Eurofins Spectrum Analytical, Inc.	**Project #:** 7877
Project Location: Melone Property - North Rd - Sudbury, MA	**RTN:**
This form provides certifications for the following data set:	SC42356-01
Matrices: Ground Water	

CAM Protocol

✓ 8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for Presumptive Certainty status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes	No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes	No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes	No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes	No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes Yes	No No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes	No

Responses to questions G, H and I below are required for Presumptive Certainty status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes	✓ No

***Data User Note:* Data that achieve Presumptive Certainty status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes	✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes	No

All negative responses are addressed in a case narrative on the cover page of this report.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Dawn E. Wojcik

Dawn E. Wojcik
Laboratory Director
Date: 2/6/2018

CASE NARRATIVE:

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

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

The samples were received 2.9 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. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

February 6, 2018 Report Revision Case Narrative:

This report has been re-issued to report the data to the MDL with J & U flags per client request.

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

SW846 8260C

Calibration:

1712031

Analyte quantified by quadratic equation type calibration.

1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene

This affected the following samples:

1720675-BLK1
1720675-BS1
1720675-BSD1
MW-2
S710666-ICV1
S710833-CCV1

Samples:

S710833-CCV1

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

Hexachlorobutadiene (-25.2%)

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

n-Butylbenzene (-21.5%)

SW846 8260C

Samples:

S710833-CCV1

This affected the following samples:

1720675-BLK1
1720675-BS1
1720675-BSD1
MW-2

SC42356-01 *MW-2*

This compound is a common laboratory contaminant.

Acetone

Sample Acceptance Check Form

Client:	GeoInsight, Inc. - Littleton, MA
Project:	Melone Property - North Rd - Sudbury, MA / 7877
Work Order:	SC42356
Sample(s) received on:	12/11/2017

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 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: SC42356-01 **Client ID:** MW-2

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Acetone	1.83	O01, J	10.0	µg/l	SW846 8260C
Methyl tert-butyl ether	0.34	J	1.00	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
MW-2	7877	Ground Water	06-Dec-17 14:10	11-Dec-17
SC42356-01				

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)	< 0.53	U	µg/l	1.00	0.53	1	SW846 8260C	13-Dec-17	13-Dec-17	EK	1720675	
67-64-1	Acetone	1.83	O01, J	µg/l	10.0	0.80	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
71-43-2	Benzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.42	U	µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.90	U	µg/l	2.00	0.90	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1.07	U	µg/l	2.00	1.07	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.41	U	µg/l	1.00	0.41	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 0.41	U	µg/l	2.00	0.41	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.44	U	µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.25	U	µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.59	U	µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.37	U	µg/l	2.00	0.37	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	2.00	0.86	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.32	U	µg/l	0.50	0.32	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.50	0.20	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.31	U	µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.27	U	µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.32	U	µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.69	U	µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 0.21	U	µg/l	1.00	0.21	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 0.42	U	µg/l	1.00	0.42	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 0.58	U	µg/l	1.00	0.58	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.50	0.35	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.47	U	µg/l	0.50	0.47	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.53	U	µg/l	2.00	0.53	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	7877	Ground Water	06-Dec-17 14:10	11-Dec-17
SC42356-01				

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													
98-82-8	Isopropylbenzene	< 0.36	U	µg/l	1.00	0.36	1	SW846 8260C	13-Dec-17	13-Dec-17	EK	1720675	
99-87-6	4-Isopropyltoluene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	**0.34**	J	µg/l	1.00	0.24	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	2.00	0.52	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.66	U	µg/l	2.00	0.66	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.35	U	µg/l	1.00	0.35	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 0.34	U	µg/l	1.00	0.34	1	"	"	"	"	"	
100-42-5	Styrene	< 0.40	U	µg/l	1.00	0.40	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.57	U	µg/l	1.00	0.57	1	"	"	"	"	"	
108-88-3	Toluene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.38	U	µg/l	1.00	0.38	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 0.30	U	µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.51	U	µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50	U	µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.36	U	µg/l	1.00	0.36	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.43	U	µg/l	1.00	0.43	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.47	U	µg/l	1.00	0.47	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.38	U	µg/l	2.00	0.38	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.28	U	µg/l	1.00	0.28	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.06	U	µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 0.37	U	µg/l	1.00	0.37	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 0.49	U	µg/l	1.00	0.49	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 0.33	U	µg/l	1.00	0.33	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 0.29	U	µg/l	1.00	0.29	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	10.0	5.90	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11.4	U	µg/l	20.0	11.4	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	5.00	0.82	1	"	"	"	"	"	
64-17-5	Ethanol	< 30.9	U	µg/l	200	30.9	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*86*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*113*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*114*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*116*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720675 - SW846 5030 Water MS										
Blank (1720675-BLK1)					Prepared & Analyzed: 13-Dec-17					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.53	U	µg/l	0.53						
Acetone	**1.09**	J	µg/l	0.80						
Acrylonitrile	< 0.47	U	µg/l	0.47						
Benzene	< 0.28	U	µg/l	0.28						
Bromobenzene	< 0.33	U	µg/l	0.33						
Bromochloromethane	< 0.34	U	µg/l	0.34						
Bromodichloromethane	< 0.42	U	µg/l	0.42						
Bromoform	< 0.42	U	µg/l	0.42						
Bromomethane	< 0.90	U	µg/l	0.90						
2-Butanone (MEK)	< 1.07	U	µg/l	1.07						
n-Butylbenzene	< 0.41	U	µg/l	0.41						
sec-Butylbenzene	< 0.33	U	µg/l	0.33						
tert-Butylbenzene	< 0.32	U	µg/l	0.32						
Carbon disulfide	< 0.41	U	µg/l	0.41						
Carbon tetrachloride	< 0.44	U	µg/l	0.44						
Chlorobenzene	< 0.25	U	µg/l	0.25						
Chloroethane	< 0.59	U	µg/l	0.59						
Chloroform	< 0.33	U	µg/l	0.33						
Chloromethane	< 0.37	U	µg/l	0.37						
2-Chlorotoluene	< 0.32	U	µg/l	0.32						
4-Chlorotoluene	< 0.32	U	µg/l	0.32						
1,2-Dibromo-3-chloropropane	< 0.86	U	µg/l	0.86						
Dibromochloromethane	< 0.32	U	µg/l	0.32						
1,2-Dibromoethane (EDB)	< 0.20	U	µg/l	0.20						
Dibromomethane	< 0.31	U	µg/l	0.31						
1,2-Dichlorobenzene	< 0.28	U	µg/l	0.28						
1,3-Dichlorobenzene	< 0.31	U	µg/l	0.31						
1,4-Dichlorobenzene	< 0.27	U	µg/l	0.27						
Dichlorodifluoromethane (Freon12)	< 0.58	U	µg/l	0.58						
1,1-Dichloroethane	< 0.32	U	µg/l	0.32						
1,2-Dichloroethane	< 0.28	U	µg/l	0.28						
1,1-Dichloroethene	< 0.69	U	µg/l	0.69						
cis-1,2-Dichloroethene	< 0.33	U	µg/l	0.33						
trans-1,2-Dichloroethene	< 0.38	U	µg/l	0.38						
1,2-Dichloropropane	< 0.29	U	µg/l	0.29						
1,3-Dichloropropane	< 0.21	U	µg/l	0.21						
2,2-Dichloropropane	< 0.42	U	µg/l	0.42						
1,1-Dichloropropene	< 0.58	U	µg/l	0.58						
cis-1,3-Dichloropropene	< 0.36	U	µg/l	0.36						
trans-1,3-Dichloropropene	< 0.35	U	µg/l	0.35						
Ethylbenzene	< 0.33	U	µg/l	0.33						
Hexachlorobutadiene	< 0.47	U	µg/l	0.47						
2-Hexanone (MBK)	< 0.53	U	µg/l	0.53						
Isopropylbenzene	< 0.36	U	µg/l	0.36						
4-Isopropyltoluene	< 0.28	U	µg/l	0.28						
Methyl tert-butyl ether	< 0.24	U	µg/l	0.24						
4-Methyl-2-pentanone (MIBK)	< 0.52	U	µg/l	0.52						
Methylene chloride	< 0.66	U	µg/l	0.66						
Naphthalene	< 0.35	U	µg/l	0.35						
n-Propylbenzene	< 0.34	U	µg/l	0.34						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720675 - SW846 5030 Water MS										
Blank (1720675-BLK1)					Prepared & Analyzed: 13-Dec-17					
Styrene	< 0.40	U	µg/l	0.40						
1,1,1,2-Tetrachloroethane	< 0.38	U	µg/l	0.38						
1,1,2,2-Tetrachloroethane	< 0.33	U	µg/l	0.33						
Tetrachloroethene	< 0.57	U	µg/l	0.57						
Toluene	< 0.30	U	µg/l	0.30						
1,2,3-Trichlorobenzene	< 0.38	U	µg/l	0.38						
1,2,4-Trichlorobenzene	< 0.38	U	µg/l	0.38						
1,3,5-Trichlorobenzene	< 0.30	U	µg/l	0.30						
1,1,1-Trichloroethane	< 0.51	U	µg/l	0.51						
1,1,2-Trichloroethane	< 0.33	U	µg/l	0.33						
Trichloroethene	< 0.50	U	µg/l	0.50						
Trichlorofluoromethane (Freon 11)	< 0.49	U	µg/l	0.49						
1,2,3-Trichloropropane	< 0.29	U	µg/l	0.29						
1,2,4-Trimethylbenzene	< 0.36	U	µg/l	0.36						
1,3,5-Trimethylbenzene	< 0.43	U	µg/l	0.43						
Vinyl chloride	< 0.47	U	µg/l	0.47						
m,p-Xylene	< 0.38	U	µg/l	0.38						
o-Xylene	< 0.28	U	µg/l	0.28						
Tetrahydrofuran	< 1.06	U	µg/l	1.06						
Ethyl ether	< 0.37	U	µg/l	0.37						
Tert-amyl methyl ether	< 0.49	U	µg/l	0.49						
Ethyl tert-butyl ether	< 0.33	U	µg/l	0.33						
Di-isopropyl ether	< 0.29	U	µg/l	0.29						
Tert-Butanol / butyl alcohol	< 5.90	U	µg/l	5.90						
1,4-Dioxane	< 11.4	U	µg/l	11.4						
trans-1,4-Dichloro-2-butene	< 0.82	U	µg/l	0.82						
Ethanol	< 30.9	U	µg/l	30.9						
Surrogate: 4-Bromofluorobenzene	*43.1*		µg/l		*50.0*		*86*	*70-130*		
Surrogate: Toluene-d8	*55.8*		µg/l		*50.0*		*112*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*59.0*		µg/l		*50.0*		*118*	*70-130*		
Surrogate: Dibromofluoromethane	*58.3*		µg/l		*50.0*		*117*	*70-130*		
LCS (1720675-BS1)					Prepared & Analyzed: 13-Dec-17					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.6**		µg/l		20.0		118	70-130		
Acetone	**24.7**		µg/l		20.0		123	70-130		
Acrylonitrile	**23.0**		µg/l		20.0		115	70-130		
Benzene	**23.5**		µg/l		20.0		117	70-130		
Bromobenzene	**20.5**		µg/l		20.0		102	70-130		
Bromochloromethane	**23.1**		µg/l		20.0		116	70-130		
Bromodichloromethane	**23.5**		µg/l		20.0		118	70-130		
Bromoform	**20.3**		µg/l		20.0		102	70-130		
Bromomethane	**23.6**		µg/l		20.0		118	70-130		
2-Butanone (MEK)	**23.1**		µg/l		20.0		115	70-130		
n-Butylbenzene	**16.6**		µg/l		20.0		83	70-130		
sec-Butylbenzene	**18.6**		µg/l		20.0		93	70-130		
tert-Butylbenzene	**18.2**		µg/l		20.0		91	70-130		
Carbon disulfide	**24.9**		µg/l		20.0		124	70-130		
Carbon tetrachloride	**22.3**		µg/l		20.0		112	70-130		
Chlorobenzene	**19.6**		µg/l		20.0		98	70-130		
Chloroethane	**22.3**		µg/l		20.0		111	70-130		
Chloroform	**23.2**		µg/l		20.0		116	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720675 - SW846 5030 Water MS										
LCS (1720675-BS1)						Prepared & Analyzed: 13-Dec-17				
Chloromethane	**23.7**		µg/l		20.0		118	70-130		
2-Chlorotoluene	**19.6**		µg/l		20.0		98	70-130		
4-Chlorotoluene	**19.5**		µg/l		20.0		98	70-130		
1,2-Dibromo-3-chloropropane	**20.6**		µg/l		20.0		103	70-130		
Dibromochloromethane	**24.1**		µg/l		20.0		120	70-130		
1,2-Dibromoethane (EDB)	**24.7**		µg/l		20.0		124	70-130		
Dibromomethane	**23.8**		µg/l		20.0		119	70-130		
1,2-Dichlorobenzene	**20.4**		µg/l		20.0		102	70-130		
1,3-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130		
1,4-Dichlorobenzene	**18.4**		µg/l		20.0		92	70-130		
Dichlorodifluoromethane (Freon12)	**25.4**		µg/l		20.0		127	70-130		
1,1-Dichloroethane	**24.2**		µg/l		20.0		121	70-130		
1,2-Dichloroethane	**23.1**		µg/l		20.0		115	70-130		
1,1-Dichloroethene	**23.9**		µg/l		20.0		120	70-130		
cis-1,2-Dichloroethene	**23.4**		µg/l		20.0		117	70-130		
trans-1,2-Dichloroethene	**23.9**		µg/l		20.0		119	70-130		
1,2-Dichloropropane	**22.4**		µg/l		20.0		112	70-130		
1,3-Dichloropropane	**24.0**		µg/l		20.0		120	70-130		
2,2-Dichloropropane	**23.4**		µg/l		20.0		117	70-130		
1,1-Dichloropropene	**21.1**		µg/l		20.0		105	70-130		
cis-1,3-Dichloropropene	**23.1**		µg/l		20.0		116	70-130		
trans-1,3-Dichloropropene	**24.3**		µg/l		20.0		122	70-130		
Ethylbenzene	**19.5**		µg/l		20.0		98	70-130		
Hexachlorobutadiene	**15.6**		µg/l		20.0		78	70-130		
2-Hexanone (MBK)	**22.2**		µg/l		20.0		111	70-130		
Isopropylbenzene	**19.0**		µg/l		20.0		95	70-130		
4-Isopropyltoluene	**17.0**		µg/l		20.0		85	70-130		
Methyl tert-butyl ether	**24.0**		µg/l		20.0		120	70-130		
4-Methyl-2-pentanone (MIBK)	**19.5**		µg/l		20.0		97	70-130		
Methylene chloride	**24.0**		µg/l		20.0		120	70-130		
Naphthalene	**16.8**		µg/l		20.0		84	70-130		
n-Propylbenzene	**18.4**		µg/l		20.0		92	70-130		
Styrene	**18.9**		µg/l		20.0		95	70-130		
1,1,1,2-Tetrachloroethane	**22.1**		µg/l		20.0		110	70-130		
1,1,2,2-Tetrachloroethane	**22.0**		µg/l		20.0		110	70-130		
Tetrachloroethene	**23.2**		µg/l		20.0		116	70-130		
Toluene	**25.8**		µg/l		20.0		129	70-130		
1,2,3-Trichlorobenzene	**18.9**		µg/l		20.0		95	70-130		
1,2,4-Trichlorobenzene	**18.1**		µg/l		20.0		91	70-130		
1,3,5-Trichlorobenzene	**16.9**		µg/l		20.0		85	70-130		
1,1,1-Trichloroethane	**22.5**		µg/l		20.0		112	70-130		
1,1,2-Trichloroethane	**24.7**		µg/l		20.0		124	70-130		
Trichloroethene	**22.5**		µg/l		20.0		112	70-130		
Trichlorofluoromethane (Freon 11)	**23.5**		µg/l		20.0		118	70-130		
1,2,3-Trichloropropane	**21.8**		µg/l		20.0		109	70-130		
1,2,4-Trimethylbenzene	**18.6**		µg/l		20.0		93	70-130		
1,3,5-Trimethylbenzene	**18.5**		µg/l		20.0		93	70-130		
Vinyl chloride	**22.1**		µg/l		20.0		110	70-130		
m,p-Xylene	**19.6**		µg/l		20.0		98	70-130		
o-Xylene	**20.1**		µg/l		20.0		100	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720675 - SW846 5030 Water MS										
LCS (1720675-BS1)					Prepared & Analyzed: 13-Dec-17					
Tetrahydrofuran	**23.0**		µg/l		20.0		115	70-130		
Ethyl ether	**22.3**		µg/l		20.0		112	70-130		
Tert-amyl methyl ether	**25.0**		µg/l		20.0		125	70-130		
Ethyl tert-butyl ether	**24.5**		µg/l		20.0		123	70-130		
Di-isopropyl ether	**24.2**		µg/l		20.0		121	70-130		
Tert-Butanol / butyl alcohol	**260**		µg/l		200		130	70-130		
1,4-Dioxane	**205**		µg/l		200		103	70-130		
trans-1,4-Dichloro-2-butene	**20.0**		µg/l		20.0		100	70-130		
Ethanol	**491**		µg/l		400		123	70-130		
Surrogate: 4-Bromofluorobenzene	*53.4*		µg/l		*50.0*		*107*	*70-130*		
Surrogate: Toluene-d8	*55.7*		µg/l		*50.0*		*111*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*54.7*		µg/l		*50.0*		*109*	*70-130*		
LCS Dup (1720675-BSD1)					Prepared & Analyzed: 13-Dec-17					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.8**		µg/l		20.0		104	70-130	13	20
Acetone	**23.7**		µg/l		20.0		118	70-130	4	20
Acrylonitrile	**23.0**		µg/l		20.0		115	70-130	0.09	20
Benzene	**22.5**		µg/l		20.0		113	70-130	4	20
Bromobenzene	**19.6**		µg/l		20.0		98	70-130	4	20
Bromochloromethane	**21.8**		µg/l		20.0		109	70-130	6	20
Bromodichloromethane	**21.5**		µg/l		20.0		108	70-130	9	20
Bromoform	**19.3**		µg/l		20.0		97	70-130	5	20
Bromomethane	**22.5**		µg/l		20.0		112	70-130	5	20
2-Butanone (MEK)	**22.7**		µg/l		20.0		114	70-130	2	20
n-Butylbenzene	**15.7**		µg/l		20.0		78	70-130	6	20
sec-Butylbenzene	**16.9**		µg/l		20.0		84	70-130	10	20
tert-Butylbenzene	**16.8**		µg/l		20.0		84	70-130	8	20
Carbon disulfide	**22.8**		µg/l		20.0		114	70-130	9	20
Carbon tetrachloride	**20.3**		µg/l		20.0		102	70-130	9	20
Chlorobenzene	**18.2**		µg/l		20.0		91	70-130	7	20
Chloroethane	**20.9**		µg/l		20.0		104	70-130	7	20
Chloroform	**21.6**		µg/l		20.0		108	70-130	7	20
Chloromethane	**21.1**		µg/l		20.0		106	70-130	11	20
2-Chlorotoluene	**17.7**		µg/l		20.0		88	70-130	10	20
4-Chlorotoluene	**17.9**		µg/l		20.0		89	70-130	9	20
1,2-Dibromo-3-chloropropane	**19.1**		µg/l		20.0		96	70-130	7	20
Dibromochloromethane	**23.2**		µg/l		20.0		116	70-130	4	20
1,2-Dibromoethane (EDB)	**23.8**		µg/l		20.0		119	70-130	4	20
Dibromomethane	**23.1**		µg/l		20.0		115	70-130	3	20
1,2-Dichlorobenzene	**19.5**		µg/l		20.0		97	70-130	5	20
1,3-Dichlorobenzene	**17.9**		µg/l		20.0		89	70-130	6	20
1,4-Dichlorobenzene	**17.5**		µg/l		20.0		88	70-130	5	20
Dichlorodifluoromethane (Freon12)	**22.6**		µg/l		20.0		113	70-130	12	20
1,1-Dichloroethane	**22.3**		µg/l		20.0		111	70-130	8	20
1,2-Dichloroethane	**21.5**		µg/l		20.0		107	70-130	7	20
1,1-Dichloroethene	**21.9**		µg/l		20.0		110	70-130	9	20
cis-1,2-Dichloroethene	**22.3**		µg/l		20.0		111	70-130	5	20
trans-1,2-Dichloroethene	**22.3**		µg/l		20.0		111	70-130	7	20
1,2-Dichloropropane	**22.2**		µg/l		20.0		111	70-130	0.8	20
1,3-Dichloropropane	**23.3**		µg/l		20.0		116	70-130	3	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1720675 - SW846 5030 Water MS										
LCS Dup (1720675-BSD1)					Prepared & Analyzed: 13-Dec-17					
2,2-Dichloropropane	**21.3**		µg/l		20.0		106	70-130	9	20
1,1-Dichloropropene	**19.6**		µg/l		20.0		98	70-130	7	20
cis-1,3-Dichloropropene	**22.6**		µg/l		20.0		113	70-130	2	20
trans-1,3-Dichloropropene	**23.4**		µg/l		20.0		117	70-130	4	20
Ethylbenzene	**18.0**		µg/l		20.0		90	70-130	8	20
Hexachlorobutadiene	**15.0**		µg/l		20.0		75	70-130	4	20
2-Hexanone (MBK)	**22.4**		µg/l		20.0		112	70-130	1	20
Isopropylbenzene	**17.9**		µg/l		20.0		89	70-130	6	20
4-Isopropyltoluene	**16.1**		µg/l		20.0		81	70-130	5	20
Methyl tert-butyl ether	**23.6**		µg/l		20.0		118	70-130	2	20
4-Methyl-2-pentanone (MIBK)	**20.0**		µg/l		20.0		100	70-130	3	20
Methylene chloride	**22.8**		µg/l		20.0		114	70-130	5	20
Naphthalene	**17.9**		µg/l		20.0		90	70-130	6	20
n-Propylbenzene	**17.1**		µg/l		20.0		85	70-130	7	20
Styrene	**17.9**		µg/l		20.0		89	70-130	6	20
1,1,1,2-Tetrachloroethane	**20.9**		µg/l		20.0		104	70-130	6	20
1,1,2,2-Tetrachloroethane	**21.2**		µg/l		20.0		106	70-130	3	20
Tetrachloroethene	**21.1**		µg/l		20.0		105	70-130	10	20
Toluene	**23.8**		µg/l		20.0		119	70-130	8	20
1,2,3-Trichlorobenzene	**18.4**		µg/l		20.0		92	70-130	3	20
1,2,4-Trichlorobenzene	**17.4**		µg/l		20.0		87	70-130	4	20
1,3,5-Trichlorobenzene	**16.6**		µg/l		20.0		83	70-130	2	20
1,1,1-Trichloroethane	**20.7**		µg/l		20.0		103	70-130	8	20
1,1,2-Trichloroethane	**23.4**		µg/l		20.0		117	70-130	6	20
Trichloroethene	**21.3**		µg/l		20.0		106	70-130	5	20
Trichlorofluoromethane (Freon 11)	**21.2**		µg/l		20.0		106	70-130	11	20
1,2,3-Trichloropropane	**21.0**		µg/l		20.0		105	70-130	4	20
1,2,4-Trimethylbenzene	**17.1**		µg/l		20.0		86	70-130	8	20
1,3,5-Trimethylbenzene	**16.7**		µg/l		20.0		84	70-130	10	20
Vinyl chloride	**22.2**		µg/l		20.0		111	70-130	0.7	20
m,p-Xylene	**17.5**		µg/l		20.0		87	70-130	11	20
o-Xylene	**18.6**		µg/l		20.0		93	70-130	8	20
Tetrahydrofuran	**23.2**		µg/l		20.0		116	70-130	0.8	20
Ethyl ether	**22.8**		µg/l		20.0		114	70-130	2	20
Tert-amyl methyl ether	**23.8**		µg/l		20.0		119	70-130	5	20
Ethyl tert-butyl ether	**24.0**		µg/l		20.0		120	70-130	2	20
Di-isopropyl ether	**23.8**		µg/l		20.0		119	70-130	2	20
Tert-Butanol / butyl alcohol	**235**		µg/l		200		117	70-130	10	20
1,4-Dioxane	**198**		µg/l		200		99	70-130	3	20
trans-1,4-Dichloro-2-butene	**19.2**		µg/l		20.0		96	70-130	4	20
Ethanol	**467**		µg/l		400		117	70-130	5	20
Surrogate: 4-Bromofluorobenzene	*52.7*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*55.7*		µg/l		*50.0*		*111*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.7*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*52.9*		µg/l		*50.0*		*106*	*70-130*		

Notes and Definitions

J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
O01	This compound is a common laboratory contaminant.
U	Analyte included in the analysis, but not detected at or above the MDL.
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.

SC42356 8m

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: Geo Insight Inc.
Littleton, MA 01460
1 Monarch Drive Suite 201
Telephone #: 978 679 1600
Project Mgr: Joel Trifilo

Invoice To: See Report to

P.O No.: _____ Quote/RQN: _____

Project No: 7877
Site Name: Melone Property
Location: Sudbury, MA State: MA
Sampler(s): CAS

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 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=_____ X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: List Preservative Code below: VOC 8260 (HCl)								Check if chlorinated
SC42356-01	MW-2	12/6/17	14:10	GW	Grab	3				X								☐
																		☐
																		☐
																		☐
																		☐
																		☐
																		☐
																		☐
																		☐
																		☐

QA/QC Reporting Notes:
* additional charges may appply

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

Relinquished by:	Received by:	Date:	Time:	Temp °C
12/6/17 17:00		12-11-17	1005	Observed 2.9
		12/11/17	1415	Correction Factor 0
				Corrected 2.9
				IR ID # 1

[ ] EDD format: _____
[x] E-mail to: Joel CAS JJTrifilo@geoinc.com

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

Batch Summary

1720675

Volatile Organic Compounds

1720675-BLK1
1720675-BS1
1720675-BSD1
SC42356-01 (MW-2)

S710666

Volatile Organic Compounds

S710666-CAL1
S710666-CAL2
S710666-CAL3
S710666-CAL4
S710666-CAL5
S710666-CAL6
S710666-CAL7
S710666-CAL8
S710666-CAL9
S710666-ICV1
S710666-LCV1
S710666-LCV2
S710666-LCV3
S710666-TUN1

S710833

Volatile Organic Compounds

S710833-CCV1
S710833-TUN1

eurofins | Spectrum Analytical

☑ Final Report
☐ Revised Report

Report Date:
06-Feb-18 14:32

Laboratory Report
SC42066

GeoInsight, Inc.
1 Monarch Drive, Suite 201
Littleton, MA 01460
Attn: Joel Trifilo

Project: Melone Property - North Rd - Sudbury, MA
Project #: 7877

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 # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Dawn Wojcik
Laboratory Director

Dawn E Wojcik

Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts 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 30 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 Eurofins Spectrum Analytical, Inc. 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 Eurofins 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.

Sample Summary

Work Order: SC42066

Project: Melone Property - North Rd - Sudbury, MA

Project Number: 7877

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC42066-01	SS-1 (0-2)	Soil	30-Nov-17 10:10	04-Dec-17 14:20
SC42066-02	SS-2 (0-2)	Soil	30-Nov-17 10:40	04-Dec-17 14:20
SC42066-03	SS-3 (0-2)	Soil	30-Nov-17 11:05	04-Dec-17 14:20
SC42066-04	SS-4 (0-2)	Soil	30-Nov-17 11:35	04-Dec-17 14:20
SC42066-05	SS-5 (0-2)	Soil	30-Nov-17 12:05	04-Dec-17 14:20
SC42066-06	SS-6 (0-2)	Soil	30-Nov-17 13:30	04-Dec-17 14:20
SC42066-07	SS-7 (0-2)	Soil	30-Nov-17 13:55	04-Dec-17 14:20
SC42066-08	SS-8 (0-2)	Soil	30-Nov-17 14:25	04-Dec-17 14:20

MassDEP Analytical Protocol Certification Form

Laboratory Name: Eurofins Spectrum Analytical, Inc.	**Project #:** 7877
Project Location: Melone Property - North Rd - Sudbury, MA	**RTN:**
This form provides certifications for the following data set:	SC42066-01 through SC42066-08
Matrices: Soil	

CAM Protocol

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	✓ 8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	✓ 8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for Presumptive Certainty status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for Presumptive Certainty status

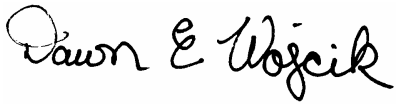
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

***Data User Note:* Data that achieve Presumptive Certainty status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes ✓ No

All negative responses are addressed in a case narrative on the cover page of this report.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.



Dawn E. Wojcik
Laboratory Director
Date: 2/6/2018

CASE NARRATIVE:

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

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

The samples were received 2.5 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. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

February 6, 2018 Report Revision Case Narrative:

This report is being re-issued to report the data to the MDL with J & U flags per client request.

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

SW846 6010C

Spikes:

1720443-MS1 *Source: SC42066-01*

The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.

Arsenic

1720443-MSD1 *Source: SC42066-01*

Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.

Arsenic

Duplicates:

1720443-DUP1 *Source: SC42066-01*

Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.

Arsenic

SW846 8081B

Samples:

SC42066-05 *SS-5 (0-2)*

SW846 8081B

Samples:

SC42066-05 *SS-5 (0-2)*

Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

4,4-DB-Octafluorobiphenyl (Sr)

Sample Acceptance Check Form

Client:	GeoInsight, Inc. - Littleton, MA
Project:	Melone Property - North Rd - Sudbury, MA / 7877
Work Order:	SC42066
Sample(s) received on:	12/4/2017

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 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: SC42066-01 **Client ID:** SS-1 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	3.90		1.57	mg/kg	SW846 6010C

Lab ID: SC42066-02 **Client ID:** SS-2 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	20.8		1.74	mg/kg	SW846 6010C

Lab ID: SC42066-03 **Client ID:** SS-3 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	8.37		1.80	mg/kg	SW846 6010C

Lab ID: SC42066-04 **Client ID:** SS-4 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	9.58		1.68	mg/kg	SW846 6010C

Lab ID: SC42066-05 **Client ID:** SS-5 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	3.45		1.62	mg/kg	SW846 6010C

Lab ID: SC42066-06 **Client ID:** SS-6 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	16.0		1.85	mg/kg	SW846 6010C

Lab ID: SC42066-07 **Client ID:** SS-7 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	2.84		1.57	mg/kg	SW846 6010C

Lab ID: SC42066-08 **Client ID:** SS-8 (0-2)

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	2.89		1.56	mg/kg	SW846 6010C

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
SS-1 (0-2)	7877	Soil	30-Nov-17 10:10	04-Dec-17
SC42066-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Pesticides													
Organochlorine Pesticides Prepared by method SW846 3546													
319-84-6	alpha-BHC	< 1.40	U	µg/kg dry	5.24	1.40	1	SW846 8081B	05-Dec-17	06-Dec-17	SM	1720199	
319-85-7	beta-BHC	< 2.07	U	µg/kg dry	5.24	2.07	1	"	"	"	"	"	
319-86-8	delta-BHC	< 1.51	U	µg/kg dry	5.24	1.51	1	"	"	"	"	"	
58-89-9	gamma-BHC (Lindane)	< 1.51	U	µg/kg dry	3.14	1.51	1	"	"	"	"	"	
76-44-8	Heptachlor	< 1.75	U	µg/kg dry	5.24	1.75	1	"	"	"	"	"	
309-00-2	Aldrin	< 1.61	U	µg/kg dry	5.24	1.61	1	"	"	"	"	"	
1024-57-3	Heptachlor epoxide	< 1.85	U	µg/kg dry	5.24	1.85	1	"	"	"	"	"	
959-98-8	Endosulfan I	< 1.84	U	µg/kg dry	5.24	1.84	1	"	"	"	"	"	
60-57-1	Dieldrin	< 1.84	U	µg/kg dry	5.24	1.84	1	"	"	"	"	"	
72-55-9	4,4'-DDE (p,p')	< 1.65	U	µg/kg dry	5.24	1.65	1	"	"	"	"	"	
72-20-8	Endrin	< 1.84	U	µg/kg dry	8.38	1.84	1	"	"	"	"	"	
33213-65-9	Endosulfan II	< 1.97	U	µg/kg dry	8.38	1.97	1	"	"	"	"	"	
72-54-8	4,4'-DDD (p,p')	< 1.82	U	µg/kg dry	8.38	1.82	1	"	"	"	"	"	
1031-07-8	Endosulfan sulfate	< 1.75	U	µg/kg dry	8.38	1.75	1	"	"	"	"	"	
50-29-3	4,4'-DDT (p,p')	< 1.61	U	µg/kg dry	8.38	1.61	1	"	"	"	"	"	
72-43-5	Methoxychlor	< 1.85	U	µg/kg dry	8.38	1.85	1	"	"	"	"	"	
53494-70-5	Endrin ketone	< 1.88	U	µg/kg dry	8.38	1.88	1	"	"	"	"	"	
7421-93-4	Endrin aldehyde	< 1.75	U	µg/kg dry	8.38	1.75	1	"	"	"	"	"	
5103-71-9	alpha-Chlordane	< 1.79	U	µg/kg dry	5.24	1.79	1	"	"	"	"	"	
5103-74-2	Chlordane (gamma)(trans)	< 1.88	U	µg/kg dry	5.24	1.88	1	"	"	"	"	"	
8001-35-2	Toxaphene	< 22.6	U	µg/kg dry	105	22.6	1	"	"	"	"	"	
57-74-9	Chlordane	< 20.7	U	µg/kg dry	20.9	20.7	1	"	"	"	"	"	
15972-60-8	Alachlor	< 2.57	U	µg/kg dry	5.24	2.57	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*39*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*43*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*44*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*45*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3050B													
7440-38-2	Arsenic	**3.90**		mg/kg dry	1.57	0.199	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**95.2**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720176	
Subcontracted Analyses													
Subcontracted Analyses Prepared by method 411796-										Methylation date: 05-Dec-17			
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
93-76-5	2,4,5-T	< 87		ug/kg	87	87	10	SW8151A	05-Dec-17	06-Dec-17 16:17	M-CT007	411796A	
93-72-1	2,4,5-TP (Silvex)	< 87		ug/kg	87	87	10	"	"	"	"	"	
94-75-7	2,4-D	< 170		ug/kg	170	170	10	"	"	"	"	"	
94-82-6	2,4-DB	< 870		ug/kg	870	870	10	"	"	"	"	"	
75-99-0	Dalapon	< 87		ug/kg	87	87	10	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-1 (0-2)	7877	Soil	30-Nov-17 10:10	04-Dec-17
SC42066-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
										Methylation date: 05-Dec-17			
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
1918-00-9	Dicamba	< 87		ug/kg	87	87	10	SW8151A	05-Dec-17	06-Dec-17 16:17	M-CT007	411796A	
120-36-5	Dichloroprop	< 130		ug/kg	130	130	10	"	"	"	"	"	
88-85-7	Dinoseb	< 87		ug/kg	87	87	10	"	"	"	"	"	
94-74-6	MCPA	< 26000		ug/kg	26000	26000	10	"	"	"	"	"	
7085-19-0	MCPP	< 26000		ug/kg	26000	26000	10	"	"	"	"	"	
Surrogate recoveries:													
19719-28-9	*% DCAA*	*55*			*30-150 %*			"	"	"	"	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
	Percent Solid	**95**		%			1	SW846-%Solid	30-Nov-17 10:10	05-Dec-17 20:00	M-CT007	'[none]'	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-2 (0-2)	7877	Soil	30-Nov-17 10:40	04-Dec-17
SC42066-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3050B													
7440-38-2	Arsenic	**20.8**		mg/kg dry	1.74	0.221	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**85.3**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720176	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-3 (0-2)	7877	Soil	30-Nov-17 11:05	04-Dec-17
SC42066-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Pesticides													
Organochlorine Pesticides Prepared by method SW846 3546													
319-84-6	alpha-BHC	< 1.61	U	µg/kg dry	6.02	1.61	1	SW846 8081B	05-Dec-17	06-Dec-17	SM	1720199	
319-85-7	beta-BHC	< 2.38	U	µg/kg dry	6.02	2.38	1	"	"	"	"	"	
319-86-8	delta-BHC	< 1.73	U	µg/kg dry	6.02	1.73	1	"	"	"	"	"	
58-89-9	gamma-BHC (Lindane)	< 1.73	U	µg/kg dry	3.61	1.73	1	"	"	"	"	"	
76-44-8	Heptachlor	< 2.01	U	µg/kg dry	6.02	2.01	1	"	"	"	"	"	
309-00-2	Aldrin	< 1.85	U	µg/kg dry	6.02	1.85	1	"	"	"	"	"	
1024-57-3	Heptachlor epoxide	< 2.13	U	µg/kg dry	6.02	2.13	1	"	"	"	"	"	
959-98-8	Endosulfan I	< 2.12	U	µg/kg dry	6.02	2.12	1	"	"	"	"	"	
60-57-1	Dieldrin	< 2.12	U	µg/kg dry	6.02	2.12	1	"	"	"	"	"	
72-55-9	4,4'-DDE (p,p')	< 1.90	U	µg/kg dry	6.02	1.90	1	"	"	"	"	"	
72-20-8	Endrin	< 2.12	U	µg/kg dry	9.63	2.12	1	"	"	"	"	"	
33213-65-9	Endosulfan II	< 2.26	U	µg/kg dry	9.63	2.26	1	"	"	"	"	"	
72-54-8	4,4'-DDD (p,p')	< 2.10	U	µg/kg dry	9.63	2.10	1	"	"	"	"	"	
1031-07-8	Endosulfan sulfate	< 2.01	U	µg/kg dry	9.63	2.01	1	"	"	"	"	"	
50-29-3	4,4'-DDT (p,p')	< 1.85	U	µg/kg dry	9.63	1.85	1	"	"	"	"	"	
72-43-5	Methoxychlor	< 2.13	U	µg/kg dry	9.63	2.13	1	"	"	"	"	"	
53494-70-5	Endrin ketone	< 2.17	U	µg/kg dry	9.63	2.17	1	"	"	"	"	"	
7421-93-4	Endrin aldehyde	< 2.01	U	µg/kg dry	9.63	2.01	1	"	"	"	"	"	
5103-71-9	alpha-Chlordane	< 2.06	U	µg/kg dry	6.02	2.06	1	"	"	"	"	"	
5103-74-2	Chlordane (gamma)(trans)	< 2.17	U	µg/kg dry	6.02	2.17	1	"	"	"	"	"	
8001-35-2	Toxaphene	< 26.0	U	µg/kg dry	120	26.0	1	"	"	"	"	"	
57-74-9	Chlordane	< 23.8	U	µg/kg dry	24.1	23.8	1	"	"	"	"	"	
15972-60-8	Alachlor	< 2.95	U	µg/kg dry	6.02	2.95	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*62*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*72*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*74*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*57*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods Prepared by method SW846 3050B													
7440-38-2	Arsenic	**8.37**		mg/kg dry	1.80	0.228	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**82.5**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720176	
Subcontracted Analyses													
Subcontracted Analyses Prepared by method 411796-										Methylation date: 05-Dec-17			
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
93-76-5	2,4,5-T	< 100		ug/kg	100	100	10	SW8151A	05-Dec-17	06-Dec-17 16:36	M-CT007	411796A	
93-72-1	2,4,5-TP (Silvex)	< 100		ug/kg	100	100	10	"	"	"	"	"	
94-75-7	2,4-D	< 200		ug/kg	200	200	10	"	"	"	"	"	
94-82-6	2,4-DB	< 1000		ug/kg	1000	1000	10	"	"	"	"	"	
75-99-0	Dalapon	< 100		ug/kg	100	100	10	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-3 (0-2)	7877	Soil	30-Nov-17 11:05	04-Dec-17
SC42066-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
												Methylation date: 05-Dec-17	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
1918-00-9	Dicamba	< 100		ug/kg	100	100	10	SW8151A	05-Dec-17	06-Dec-17 16:36	M-CT007	411796A	
120-36-5	Dichloroprop	< 150		ug/kg	150	150	10	"	"	"	"	"	
88-85-7	Dinoseb	< 100		ug/kg	100	100	10	"	"	"	"	"	
94-74-6	MCPA	< 30000		ug/kg	30000	30000	10	"	"	"	"	"	
7085-19-0	MCPP	< 30000		ug/kg	30000	30000	10	"	"	"	"	"	
Surrogate recoveries:													
19719-28-9	*% DCAA*	*46*			*30-150 %*			"	"	"	"	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
	Percent Solid	83		%			1	SW846-%Solid	30-Nov-17 11:05	05-Dec-17 20:00	M-CT007	'[none]'	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-4 (0-2)	7877	Soil	30-Nov-17 11:35	04-Dec-17
SC42066-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3050B													
7440-38-2	Arsenic	**9.58**		mg/kg dry	1.68	0.212	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**88.4**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720186	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-5 (0-2)	7877	Soil	30-Nov-17 12:05	04-Dec-17
SC42066-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Pesticides													
Organochlorine Pesticides Prepared by method SW846 3546													
319-84-6	alpha-BHC	< 1.44	U	µg/kg dry	5.38	1.44	1	SW846 8081B	05-Dec-17	06-Dec-17	SM	1720199	
319-85-7	beta-BHC	< 2.13	U	µg/kg dry	5.38	2.13	1	"	"	"	"	"	
319-86-8	delta-BHC	< 1.55	U	µg/kg dry	5.38	1.55	1	"	"	"	"	"	
58-89-9	gamma-BHC (Lindane)	< 1.55	U	µg/kg dry	3.23	1.55	1	"	"	"	"	"	
76-44-8	Heptachlor	< 1.80	U	µg/kg dry	5.38	1.80	1	"	"	"	"	"	
309-00-2	Aldrin	< 1.66	U	µg/kg dry	5.38	1.66	1	"	"	"	"	"	
1024-57-3	Heptachlor epoxide	< 1.90	U	µg/kg dry	5.38	1.90	1	"	"	"	"	"	
959-98-8	Endosulfan I	< 1.89	U	µg/kg dry	5.38	1.89	1	"	"	"	"	"	
60-57-1	Dieldrin	< 1.89	U	µg/kg dry	5.38	1.89	1	"	"	"	"	"	
72-55-9	4,4'-DDE (p,p')	< 1.70	U	µg/kg dry	5.38	1.70	1	"	"	"	"	"	
72-20-8	Endrin	< 1.89	U	µg/kg dry	8.60	1.89	1	"	"	"	"	"	
33213-65-9	Endosulfan II	< 2.02	U	µg/kg dry	8.60	2.02	1	"	"	"	"	"	
72-54-8	4,4'-DDD (p,p')	< 1.87	U	µg/kg dry	8.60	1.87	1	"	"	"	"	"	
1031-07-8	Endosulfan sulfate	< 1.80	U	µg/kg dry	8.60	1.80	1	"	"	"	"	"	
50-29-3	4,4'-DDT (p,p')	< 1.66	U	µg/kg dry	8.60	1.66	1	"	"	"	"	"	
72-43-5	Methoxychlor	< 1.90	U	µg/kg dry	8.60	1.90	1	"	"	"	"	"	
53494-70-5	Endrin ketone	< 1.94	U	µg/kg dry	8.60	1.94	1	"	"	"	"	"	
7421-93-4	Endrin aldehyde	< 1.80	U	µg/kg dry	8.60	1.80	1	"	"	"	"	"	
5103-71-9	alpha-Chlordane	< 1.84	U	µg/kg dry	5.38	1.84	1	"	"	"	"	"	
5103-74-2	Chlordane (gamma)(trans)	< 1.94	U	µg/kg dry	5.38	1.94	1	"	"	"	"	"	
8001-35-2	Toxaphene	< 23.3	U	µg/kg dry	108	23.3	1	"	"	"	"	"	
57-74-9	Chlordane	< 21.3	U	µg/kg dry	21.5	21.3	1	"	"	"	"	"	
15972-60-8	Alachlor	< 2.64	U	µg/kg dry	5.38	2.64	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*28*	SGC		*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*41*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*49*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*31*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods Prepared by method SW846 3050B													
7440-38-2	Arsenic	**3.45**		mg/kg dry	1.62	0.205	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**91.6**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720186	
Subcontracted Analyses													
Subcontracted Analyses Prepared by method 411796-										Methylation date: 05-Dec-17			
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
93-76-5	2,4,5-T	< 91		ug/kg	91	91	10	SW8151A	05-Dec-17	06-Dec-17 16:55	M-CT007	411796A	
93-72-1	2,4,5-TP (Silvex)	< 91		ug/kg	91	91	10	"	"	"	"	"	
94-75-7	2,4-D	< 180		ug/kg	180	180	10	"	"	"	"	"	
94-82-6	2,4-DB	< 910		ug/kg	910	910	10	"	"	"	"	"	
75-99-0	Dalapon	< 91		ug/kg	91	91	10	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-5 (0-2)	7877	Soil	30-Nov-17 12:05	04-Dec-17
SC42066-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
									Methylation date: 05-Dec-17				
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
1918-00-9	Dicamba	< 91		ug/kg	91	91	10	SW8151A	05-Dec-17	06-Dec-17 16:55	M-CT007	411796A	
120-36-5	Dichloroprop	< 140		ug/kg	140	140	10	"	"	"	"	"	
88-85-7	Dinoseb	< 91		ug/kg	91	91	10	"	"	"	"	"	
94-74-6	MCPA	< 27000		ug/kg	27000	27000	10	"	"	"	"	"	
7085-19-0	MCPP	< 27000		ug/kg	27000	27000	10	"	"	"	"	"	
Surrogate recoveries:													
19719-28-9	*% DCAA*	*43*			*30-150 %*			"	"	"	"	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
	Percent Solid	91		%			1	SW846-%Solid	30-Nov-17 12:05	05-Dec-17 20:00	M-CT007	'[none]'	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-6 (0-2) SC42066-06	7877	Soil	30-Nov-17 13:30	04-Dec-17

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3050B													
7440-38-2	Arsenic	**16.0**		mg/kg dry	1.85	0.235	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**80.4**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720186	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-7 (0-2)	7877	Soil	30-Nov-17 13:55	04-Dec-17
SC42066-07				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Pesticides													
Organochlorine Pesticides Prepared by method SW846 3546													
319-84-6	alpha-BHC	< 1.41	U	µg/kg dry	5.26	1.41	1	SW846 8081B	05-Dec-17	06-Dec-17	SM	1720199	
319-85-7	beta-BHC	< 2.08	U	µg/kg dry	5.26	2.08	1	"	"	"	"	"	
319-86-8	delta-BHC	< 1.51	U	µg/kg dry	5.26	1.51	1	"	"	"	"	"	
58-89-9	gamma-BHC (Lindane)	< 1.51	U	µg/kg dry	3.15	1.51	1	"	"	"	"	"	
76-44-8	Heptachlor	< 1.76	U	µg/kg dry	5.26	1.76	1	"	"	"	"	"	
309-00-2	Aldrin	< 1.62	U	µg/kg dry	5.26	1.62	1	"	"	"	"	"	
1024-57-3	Heptachlor epoxide	< 1.86	U	µg/kg dry	5.26	1.86	1	"	"	"	"	"	
959-98-8	Endosulfan I	< 1.85	U	µg/kg dry	5.26	1.85	1	"	"	"	"	"	
60-57-1	Dieldrin	< 1.85	U	µg/kg dry	5.26	1.85	1	"	"	"	"	"	
72-55-9	4,4'-DDE (p,p')	< 1.66	U	µg/kg dry	5.26	1.66	1	"	"	"	"	"	
72-20-8	Endrin	< 1.85	U	µg/kg dry	8.41	1.85	1	"	"	"	"	"	
33213-65-9	Endosulfan II	< 1.98	U	µg/kg dry	8.41	1.98	1	"	"	"	"	"	
72-54-8	4,4'-DDD (p,p')	< 1.83	U	µg/kg dry	8.41	1.83	1	"	"	"	"	"	
1031-07-8	Endosulfan sulfate	< 1.76	U	µg/kg dry	8.41	1.76	1	"	"	"	"	"	
50-29-3	4,4'-DDT (p,p')	< 1.62	U	µg/kg dry	8.41	1.62	1	"	"	"	"	"	
72-43-5	Methoxychlor	< 1.86	U	µg/kg dry	8.41	1.86	1	"	"	"	"	"	
53494-70-5	Endrin ketone	< 1.89	U	µg/kg dry	8.41	1.89	1	"	"	"	"	"	
7421-93-4	Endrin aldehyde	< 1.76	U	µg/kg dry	8.41	1.76	1	"	"	"	"	"	
5103-71-9	alpha-Chlordane	< 1.80	U	µg/kg dry	5.26	1.80	1	"	"	"	"	"	
5103-74-2	Chlordane (gamma)(trans)	< 1.89	U	µg/kg dry	5.26	1.89	1	"	"	"	"	"	
8001-35-2	Toxaphene	< 22.7	U	µg/kg dry	105	22.7	1	"	"	"	"	"	
57-74-9	Chlordane	< 20.8	U	µg/kg dry	21.0	20.8	1	"	"	"	"	"	
15972-60-8	Alachlor	< 2.58	U	µg/kg dry	5.26	2.58	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*35*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*49*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*56*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*47*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods Prepared by method SW846 3050B													
7440-38-2	Arsenic	**2.84**		mg/kg dry	1.57	0.198	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**94.6**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720186	
Subcontracted Analyses													
Subcontracted Analyses Prepared by method 411796-										Methylation date: 05-Dec-17			
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
93-76-5	2,4,5-T	< 88		ug/kg	88	88	10	SW8151A	05-Dec-17	06-Dec-17 17:13	M-CT007	411796A	
93-72-1	2,4,5-TP (Silvex)	< 88		ug/kg	88	88	10	"	"	"	"	"	
94-75-7	2,4-D	< 180		ug/kg	180	180	10	"	"	"	"	"	
94-82-6	2,4-DB	< 880		ug/kg	880	880	10	"	"	"	"	"	
75-99-0	Dalapon	< 88		ug/kg	88	88	10	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-7 (0-2)	7877	Soil	30-Nov-17 13:55	04-Dec-17
SC42066-07				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
												Methylation date: 05-Dec-17	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
1918-00-9	Dicamba	< 88		ug/kg	88	88	10	SW8151A	05-Dec-17	06-Dec-17 17:13	M-CT007	411796A	
120-36-5	Dichloroprop	< 130		ug/kg	130	130	10	"	"	"	"	"	
88-85-7	Dinoseb	< 88		ug/kg	88	88	10	"	"	"	"	"	
94-74-6	MCPA	< 26000		ug/kg	26000	26000	10	"	"	"	"	"	
7085-19-0	MCPP	< 26000		ug/kg	26000	26000	10	"	"	"	"	"	
Surrogate recoveries:													
19719-28-9	*% DCAA*	*41*			*30-150 %*			"	"	"	"	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
	Percent Solid	**95**		%			1	SW846-%Solid	30-Nov-17 13:55	05-Dec-17 20:00	M-CT007	'[none]'	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SS-8 (0-2)	7877	Soil	30-Nov-17 14:25	04-Dec-17
SC42066-08				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3050B													
7440-38-2	Arsenic	**2.89**		mg/kg dry	1.56	0.198	1	SW846 6010C	11-Dec-17	14-Dec-17	SJR/TBC	1720443	
General Chemistry Parameters													
	% Solids	**96.1**		%			1	SM2540 G (11) Mod.	04-Dec-17	04-Dec-17	BD	1720186	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8081B										
Batch 1720199 - SW846 3546										
Blank (1720199-BLK1)					Prepared: 05-Dec-17 Analyzed: 06-Dec-17					
alpha-BHC	< 1.34	U	µg/kg wet	1.34						
alpha-BHC [2C]	< 1.72	U	µg/kg wet	1.72						
beta-BHC	< 1.98	U	µg/kg wet	1.98						
beta-BHC [2C]	< 1.96	U	µg/kg wet	1.96						
delta-BHC	< 1.44	U	µg/kg wet	1.44						
delta-BHC [2C]	< 1.75	U	µg/kg wet	1.75						
gamma-BHC (Lindane)	< 1.44	U	µg/kg wet	1.44						
gamma-BHC (Lindane) [2C]	< 1.68	U	µg/kg wet	1.68						
Heptachlor	< 1.67	U	µg/kg wet	1.67						
Heptachlor [2C]	< 1.40	U	µg/kg wet	1.40						
Aldrin	< 1.54	U	µg/kg wet	1.54						
Aldrin [2C]	< 1.86	U	µg/kg wet	1.86						
Heptachlor epoxide	< 1.77	U	µg/kg wet	1.77						
Heptachlor epoxide [2C]	< 1.89	U	µg/kg wet	1.89						
Endosulfan I	< 1.76	U	µg/kg wet	1.76						
Endosulfan I [2C]	< 1.95	U	µg/kg wet	1.95						
Dieldrin	< 1.76	U	µg/kg wet	1.76						
Dieldrin [2C]	< 1.81	U	µg/kg wet	1.81						
4,4'-DDE (p,p')	< 1.58	U	µg/kg wet	1.58						
4,4'-DDE (p,p') [2C]	< 1.72	U	µg/kg wet	1.72						
Endrin	< 1.76	U	µg/kg wet	1.76						
Endrin [2C]	< 1.60	U	µg/kg wet	1.60						
Endosulfan II	< 1.88	U	µg/kg wet	1.88						
Endosulfan II [2C]	< 1.96	U	µg/kg wet	1.96						
4,4'-DDD (p,p')	< 1.74	U	µg/kg wet	1.74						
4,4'-DDD (p,p') [2C]	< 1.99	U	µg/kg wet	1.99						
Endosulfan sulfate	< 1.67	U	µg/kg wet	1.67						
Endosulfan sulfate [2C]	< 2.01	U	µg/kg wet	2.01						
4,4'-DDT (p,p')	< 1.54	U	µg/kg wet	1.54						
4,4'-DDT (p,p') [2C]	< 1.02	U	µg/kg wet	1.02						
Methoxychlor	< 1.77	U	µg/kg wet	1.77						
Methoxychlor [2C]	< 1.46	U	µg/kg wet	1.46						
Endrin ketone	< 1.80	U	µg/kg wet	1.80						
Endrin ketone [2C]	< 2.01	U	µg/kg wet	2.01						
Endrin aldehyde	< 1.67	U	µg/kg wet	1.67						
Endrin aldehyde [2C]	< 1.89	U	µg/kg wet	1.89						
alpha-Chlordane	< 1.71	U	µg/kg wet	1.71						
alpha-Chlordane [2C]	< 1.82	U	µg/kg wet	1.82						
Chlordane (gamma)(trans)	< 1.80	U	µg/kg wet	1.80						
Chlordane (gamma)(trans) [2C]	< 1.80	U	µg/kg wet	1.80						
Toxaphene	< 21.6	U	µg/kg wet	21.6						
Toxaphene [2C]	< 22.4	U	µg/kg wet	22.4						
Chlordane	< 19.7	U	µg/kg wet	19.7						
Chlordane [2C]	< 19.6	U	µg/kg wet	19.6						
Alachlor	< 2.45	U	µg/kg wet	2.45						
Alachlor [2C]	< 2.63	U	µg/kg wet	2.63						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*8.92*		µg/kg wet		*9.98*		*89*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*8.98*		µg/kg wet		*9.98*		*90*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*7.95*		µg/kg wet		*9.98*		*80*	*30-150*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8081B										
Batch 1720199 - SW846 3546										
Blank (1720199-BLK1)					Prepared: 05-Dec-17 Analyzed: 06-Dec-17					
Surrogate: Decachlorobiphenyl (Sr) [2C]	*6.70*		µg/kg wet		*9.98*		*67*	*30-150*		
LCS (1720199-BS1)					Prepared: 05-Dec-17 Analyzed: 06-Dec-17					
alpha-BHC	**15.4**		µg/kg wet	1.33	24.9		62	40-140		
alpha-BHC [2C]	**15.2**		µg/kg wet	1.71	24.9		61	40-140		
beta-BHC	**18.3**		µg/kg wet	1.97	24.9		73	40-140		
beta-BHC [2C]	**17.3**		µg/kg wet	1.95	24.9		69	40-140		
delta-BHC	**16.1**		µg/kg wet	1.43	24.9		65	40-140		
delta-BHC [2C]	**15.7**		µg/kg wet	1.74	24.9		63	40-140		
gamma-BHC (Lindane)	**16.1**		µg/kg wet	1.43	24.9		65	40-140		
gamma-BHC (Lindane) [2C]	**15.5**		µg/kg wet	1.67	24.9		62	40-140		
Heptachlor	**18.8**		µg/kg wet	1.66	24.9		76	40-140		
Heptachlor [2C]	**17.3**		µg/kg wet	1.39	24.9		70	40-140		
Aldrin	**17.8**		µg/kg wet	1.53	24.9		71	40-140		
Aldrin [2C]	**17.3**		µg/kg wet	1.85	24.9		70	40-140		
Heptachlor epoxide	**18.1**		µg/kg wet	1.76	24.9		73	40-140		
Heptachlor epoxide [2C]	**16.6**		µg/kg wet	1.88	24.9		67	40-140		
Endosulfan I	**19.5**		µg/kg wet	1.75	24.9		79	40-140		
Endosulfan I [2C]	**17.8**		µg/kg wet	1.94	24.9		71	40-140		
Dieldrin	**20.4**		µg/kg wet	1.75	24.9		82	40-140		
Dieldrin [2C]	**17.4**		µg/kg wet	1.80	24.9		70	40-140		
4,4'-DDE (p,p')	**20.0**		µg/kg wet	1.57	24.9		80	40-140		
4,4'-DDE (p,p') [2C]	**16.8**		µg/kg wet	1.71	24.9		67	40-140		
Endrin	**22.9**		µg/kg wet	1.75	24.9		92	40-140		
Endrin [2C]	**19.2**		µg/kg wet	1.59	24.9		77	40-140		
Endosulfan II	**23.2**		µg/kg wet	1.87	24.9		93	40-140		
Endosulfan II [2C]	**18.1**		µg/kg wet	1.95	24.9		73	40-140		
4,4'-DDD (p,p')	**22.3**		µg/kg wet	1.73	24.9		90	40-140		
4,4'-DDD (p,p') [2C]	**17.4**		µg/kg wet	1.98	24.9		70	40-140		
Endosulfan sulfate	**21.1**		µg/kg wet	1.66	24.9		85	40-140		
Endosulfan sulfate [2C]	**18.5**		µg/kg wet	2.00	24.9		74	40-140		
4,4'-DDT (p,p')	**24.4**		µg/kg wet	1.53	24.9		98	40-140		
4,4'-DDT (p,p') [2C]	**17.1**		µg/kg wet	1.02	24.9		69	40-140		
Methoxychlor	**21.3**		µg/kg wet	1.76	24.9		86	40-140		
Methoxychlor [2C]	**18.6**		µg/kg wet	1.45	24.9		75	40-140		
Endrin ketone	**17.8**		µg/kg wet	1.79	24.9		71	40-140		
Endrin ketone [2C]	**16.4**		µg/kg wet	2.00	24.9		66	40-140		
Endrin aldehyde	**24.1**		µg/kg wet	1.66	24.9		97	40-140		
Endrin aldehyde [2C]	**18.1**		µg/kg wet	1.88	24.9		73	40-140		
alpha-Chlordane	**18.2**		µg/kg wet	1.70	24.9		73	40-140		
alpha-Chlordane [2C]	**17.3**		µg/kg wet	1.81	24.9		69	40-140		
Chlordane (gamma)(trans)	**18.1**		µg/kg wet	1.79	24.9		73	40-140		
Chlordane (gamma)(trans) [2C]	**17.2**		µg/kg wet	1.79	24.9		69	40-140		
Alachlor	**18.6**		µg/kg wet	2.44	24.9		75	40-140		
Alachlor [2C]	**18.6**		µg/kg wet	2.62	24.9		75	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*9.15*		µg/kg wet		*9.95*		*92*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*9.18*		µg/kg wet		*9.95*		*92*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*8.27*		µg/kg wet		*9.95*		*83*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*6.54*		µg/kg wet		*9.95*		*66*	*30-150*		
LCS Dup (1720199-BSD1)					Prepared: 05-Dec-17 Analyzed: 06-Dec-17					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8081B										
Batch 1720199 - SW846 3546										
LCS Dup (1720199-BSD1)					Prepared: 05-Dec-17 Analyzed: 06-Dec-17					
alpha-BHC	**15.6**		µg/kg wet	1.34	24.9		63	40-140	2	30
alpha-BHC [2C]	**15.3**		µg/kg wet	1.71	24.9		61	40-140	0.6	30
beta-BHC	**18.1**		µg/kg wet	1.97	24.9		73	40-140	1	30
beta-BHC [2C]	**17.5**		µg/kg wet	1.95	24.9		70	40-140	1	30
delta-BHC	**16.4**		µg/kg wet	1.43	24.9		66	40-140	2	30
delta-BHC [2C]	**15.9**		µg/kg wet	1.74	24.9		64	40-140	1	30
gamma-BHC (Lindane)	**16.3**		µg/kg wet	1.43	24.9		66	40-140	1	30
gamma-BHC (Lindane) [2C]	**15.8**		µg/kg wet	1.67	24.9		63	40-140	2	30
Heptachlor	**18.8**		µg/kg wet	1.66	24.9		75	40-140	0.2	30
Heptachlor [2C]	**17.6**		µg/kg wet	1.40	24.9		71	40-140	2	30
Aldrin	**18.3**		µg/kg wet	1.53	24.9		73	40-140	3	30
Aldrin [2C]	**17.9**		µg/kg wet	1.85	24.9		72	40-140	3	30
Heptachlor epoxide	**17.9**		µg/kg wet	1.76	24.9		72	40-140	1	30
Heptachlor epoxide [2C]	**16.8**		µg/kg wet	1.88	24.9		68	40-140	1	30
Endosulfan I	**18.8**		µg/kg wet	1.75	24.9		76	40-140	4	30
Endosulfan I [2C]	**18.0**		µg/kg wet	1.94	24.9		72	40-140	1	30
Dieldrin	**18.5**		µg/kg wet	1.75	24.9		74	40-140	10	30
Dieldrin [2C]	**17.5**		µg/kg wet	1.80	24.9		70	40-140	0.6	30
4,4'-DDE (p,p')	**18.1**		µg/kg wet	1.57	24.9		73	40-140	10	30
4,4'-DDE (p,p') [2C]	**17.1**		µg/kg wet	1.71	24.9		68	40-140	2	30
Endrin	**21.2**		µg/kg wet	1.75	24.9		85	40-140	8	30
Endrin [2C]	**19.2**		µg/kg wet	1.59	24.9		77	40-140	0.3	30
Endosulfan II	**19.2**		µg/kg wet	1.87	24.9		77	40-140	19	30
Endosulfan II [2C]	**17.9**		µg/kg wet	1.95	24.9		72	40-140	1	30
4,4'-DDD (p,p')	**18.8**		µg/kg wet	1.73	24.9		75	40-140	17	30
4,4'-DDD (p,p') [2C]	**17.4**		µg/kg wet	1.98	24.9		70	40-140	0.2	30
Endosulfan sulfate	**18.7**		µg/kg wet	1.66	24.9		75	40-140	12	30
Endosulfan sulfate [2C]	**18.4**		µg/kg wet	2.00	24.9		74	40-140	0.5	30
4,4'-DDT (p,p')	**19.3**		µg/kg wet	1.53	24.9		78	40-140	23	30
4,4'-DDT (p,p') [2C]	**17.1**		µg/kg wet	1.02	24.9		69	40-140	0.3	30
Methoxychlor	**20.4**		µg/kg wet	1.76	24.9		82	40-140	4	30
Methoxychlor [2C]	**18.1**		µg/kg wet	1.45	24.9		73	40-140	3	30
Endrin ketone	**16.9**		µg/kg wet	1.79	24.9		68	40-140	5	30
Endrin ketone [2C]	**16.4**		µg/kg wet	2.00	24.9		66	40-140	0.2	30
Endrin aldehyde	**20.2**		µg/kg wet	1.66	24.9		81	40-140	18	30
Endrin aldehyde [2C]	**20.8**		µg/kg wet	1.88	24.9		83	40-140	14	30
alpha-Chlordane	**18.0**		µg/kg wet	1.70	24.9		72	40-140	1	30
alpha-Chlordane [2C]	**17.6**		µg/kg wet	1.81	24.9		70	40-140	2	30
Chlordane (gamma)(trans)	**18.0**		µg/kg wet	1.79	24.9		72	40-140	0.8	30
Chlordane (gamma)(trans) [2C]	**17.5**		µg/kg wet	1.79	24.9		70	40-140	2	30
Alachlor	**18.5**		µg/kg wet	2.44	24.9		74	40-140	0.3	30
Alachlor [2C]	**19.9**		µg/kg wet	2.62	24.9		80	40-140	7	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*8.68*		µg/kg wet		*9.96*		*87*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*8.61*		µg/kg wet		*9.96*		*86*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*7.21*		µg/kg wet		*9.96*		*72*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*6.31*		µg/kg wet		*9.96*		*63*	*30-150*		
Duplicate (1720199-DUP1)			**Source: SC42066-07**		Prepared: 05-Dec-17 Analyzed: 06-Dec-17					
alpha-BHC	< 1.41	U	µg/kg dry	1.41		BRL				30
alpha-BHC [2C]	< 1.81	U	µg/kg dry	1.81		BRL				30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8081B										
Batch 1720199 - SW846 3546										
Duplicate (1720199-DUP1)			**Source: SC42066-07**		Prepared: 05-Dec-17 Analyzed: 06-Dec-17					
beta-BHC	< 2.08	U	µg/kg dry	2.08		BRL				30
beta-BHC [2C]	< 2.06	U	µg/kg dry	2.06		BRL				30
delta-BHC	< 1.51	U	µg/kg dry	1.51		BRL				30
delta-BHC [2C]	< 1.84	U	µg/kg dry	1.84		BRL				30
gamma-BHC (Lindane)	< 1.51	U	µg/kg dry	1.51		BRL				30
gamma-BHC (Lindane) [2C]	< 1.76	U	µg/kg dry	1.76		BRL				30
Heptachlor	< 1.75	U	µg/kg dry	1.75		BRL				30
Heptachlor [2C]	< 1.47	U	µg/kg dry	1.47		BRL				30
Aldrin	< 1.62	U	µg/kg dry	1.62		BRL				30
Aldrin [2C]	< 1.95	U	µg/kg dry	1.95		BRL				30
Heptachlor epoxide	< 1.86	U	µg/kg dry	1.86		BRL				30
Heptachlor epoxide [2C]	< 1.98	U	µg/kg dry	1.98		BRL				30
Endosulfan I	< 1.85	U	µg/kg dry	1.85		BRL				30
Endosulfan I [2C]	< 2.05	U	µg/kg dry	2.05		BRL				30
Dieldrin	< 1.85	U	µg/kg dry	1.85		BRL				30
Dieldrin [2C]	< 1.90	U	µg/kg dry	1.90		BRL				30
4,4'-DDE (p,p')	< 1.66	U	µg/kg dry	1.66		BRL				30
4,4'-DDE (p,p') [2C]	< 1.81	U	µg/kg dry	1.81		BRL				30
Endrin	< 1.85	U	µg/kg dry	1.85		BRL				30
Endrin [2C]	< 1.68	U	µg/kg dry	1.68		BRL				30
Endosulfan II	< 1.97	U	µg/kg dry	1.97		BRL				30
Endosulfan II [2C]	< 2.06	U	µg/kg dry	2.06		BRL				30
4,4'-DDD (p,p')	< 1.83	U	µg/kg dry	1.83		BRL				30
4,4'-DDD (p,p') [2C]	< 2.09	U	µg/kg dry	2.09		BRL				30
Endosulfan sulfate	< 1.75	U	µg/kg dry	1.75		BRL				30
Endosulfan sulfate [2C]	< 2.11	U	µg/kg dry	2.11		BRL				30
4,4'-DDT (p,p')	< 1.62	U	µg/kg dry	1.62		BRL				30
4,4'-DDT (p,p') [2C]	< 1.07	U	µg/kg dry	1.07		BRL				30
Methoxychlor	< 1.86	U	µg/kg dry	1.86		BRL				30
Methoxychlor [2C]	< 1.53	U	µg/kg dry	1.53		BRL				30
Endrin ketone	< 1.89	U	µg/kg dry	1.89		BRL				30
Endrin ketone [2C]	< 2.11	U	µg/kg dry	2.11		BRL				30
Endrin aldehyde	< 1.75	U	µg/kg dry	1.75		BRL				30
Endrin aldehyde [2C]	< 1.98	U	µg/kg dry	1.98		BRL				30
alpha-Chlordane	< 1.80	U	µg/kg dry	1.80		BRL				30
alpha-Chlordane [2C]	< 1.91	U	µg/kg dry	1.91		BRL				30
Chlordane (gamma)(trans)	< 1.89	U	µg/kg dry	1.89		BRL				30
Chlordane (gamma)(trans) [2C]	< 1.89	U	µg/kg dry	1.89		BRL				30
Toxaphene	< 22.7	U	µg/kg dry	22.7		BRL				30
Toxaphene [2C]	< 23.5	U	µg/kg dry	23.5		BRL				30
Chlordane	< 20.8	U	µg/kg dry	20.8		BRL				30
Chlordane [2C]	< 20.6	U	µg/kg dry	20.6		BRL				30
Alachlor	< 2.57	U	µg/kg dry	2.57		BRL				30
Alachlor [2C]	< 2.76	U	µg/kg dry	2.76		BRL				30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*4.06*		µg/kg dry		*10.5*		*39*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*5.95*		µg/kg dry		*10.5*		*57*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*5.63*		µg/kg dry		*10.5*		*54*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*5.06*		µg/kg dry		*10.5*		*48*	*30-150*		
Matrix Spike (1720199-MS1)			**Source: SC42066-07**		Prepared: 05-Dec-17 Analyzed: 06-Dec-17					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8081B										
Batch 1720199 - SW846 3546										
Matrix Spike (1720199-MS1)			**Source: SC42066-07**			Prepared: 05-Dec-17 Analyzed: 06-Dec-17				
alpha-BHC	**14.3**		µg/kg dry	1.40	26.1	BRL	55	30-150		
alpha-BHC [2C]	**14.6**		µg/kg dry	1.80	26.1	BRL	56	30-150		
beta-BHC	**18.4**		µg/kg dry	2.07	26.1	BRL	70	30-150		
beta-BHC [2C]	**19.0**		µg/kg dry	2.05	26.1	BRL	73	30-150		
delta-BHC	**18.0**		µg/kg dry	1.51	26.1	BRL	69	30-150		
delta-BHC [2C]	**18.3**		µg/kg dry	1.83	26.1	BRL	70	30-150		
gamma-BHC (Lindane)	**15.4**		µg/kg dry	1.51	26.1	BRL	59	30-150		
gamma-BHC (Lindane) [2C]	**15.3**		µg/kg dry	1.76	26.1	BRL	59	30-150		
Heptachlor	**17.4**		µg/kg dry	1.75	26.1	BRL	67	30-150		
Heptachlor [2C]	**16.9**		µg/kg dry	1.46	26.1	BRL	65	30-150		
Aldrin	**16.4**		µg/kg dry	1.61	26.1	BRL	63	30-150		
Aldrin [2C]	**16.7**		µg/kg dry	1.94	26.1	BRL	64	30-150		
Heptachlor epoxide	**18.0**		µg/kg dry	1.85	26.1	BRL	69	30-150		
Heptachlor epoxide [2C]	**17.2**		µg/kg dry	1.98	26.1	BRL	66	30-150		
Endosulfan I	**19.0**		µg/kg dry	1.84	26.1	BRL	73	30-150		
Endosulfan I [2C]	**18.8**		µg/kg dry	2.04	26.1	BRL	72	30-150		
Dieldrin	**19.2**		µg/kg dry	1.84	26.1	BRL	73	30-150		
Dieldrin [2C]	**19.1**		µg/kg dry	1.89	26.1	BRL	73	30-150		
4,4'-DDE (p,p')	**18.8**		µg/kg dry	1.65	26.1	BRL	72	30-150		
4,4'-DDE (p,p') [2C]	**18.7**		µg/kg dry	1.80	26.1	BRL	71	30-150		
Endrin	**21.7**		µg/kg dry	1.84	26.1	BRL	83	30-150		
Endrin [2C]	**20.9**		µg/kg dry	1.67	26.1	BRL	80	30-150		
Endosulfan II	**20.6**		µg/kg dry	1.97	26.1	BRL	79	30-150		
Endosulfan II [2C]	**20.5**		µg/kg dry	2.05	26.1	BRL	79	30-150		
4,4'-DDD (p,p')	**20.0**		µg/kg dry	1.82	26.1	BRL	77	30-150		
4,4'-DDD (p,p') [2C]	**19.9**		µg/kg dry	2.08	26.1	BRL	76	30-150		
Endosulfan sulfate	**21.2**		µg/kg dry	1.75	26.1	BRL	81	30-150		
Endosulfan sulfate [2C]	**21.5**		µg/kg dry	2.10	26.1	BRL	82	30-150		
4,4'-DDT (p,p')	**21.8**		µg/kg dry	1.61	26.1	BRL	84	30-150		
4,4'-DDT (p,p') [2C]	**20.2**		µg/kg dry	1.07	26.1	BRL	77	30-150		
Methoxychlor	**23.3**		µg/kg dry	1.85	26.1	BRL	89	30-150		
Methoxychlor [2C]	**21.1**		µg/kg dry	1.53	26.1	BRL	81	30-150		
Endrin ketone	**18.8**		µg/kg dry	1.88	26.1	BRL	72	30-150		
Endrin ketone [2C]	**18.9**		µg/kg dry	2.10	26.1	BRL	72	30-150		
Endrin aldehyde	**22.5**		µg/kg dry	1.75	26.1	BRL	86	30-150		
Endrin aldehyde [2C]	**24.6**		µg/kg dry	1.98	26.1	BRL	94	30-150		
alpha-Chlordane	**18.3**		µg/kg dry	1.79	26.1	BRL	70	30-150		
alpha-Chlordane [2C]	**18.6**		µg/kg dry	1.90	26.1	BRL	71	30-150		
Chlordane (gamma)(trans)	**18.5**		µg/kg dry	1.88	26.1	BRL	71	30-150		
Chlordane (gamma)(trans) [2C]	**18.5**		µg/kg dry	1.88	26.1	BRL	71	30-150		
Alachlor	**19.8**		µg/kg dry	2.56	26.1	BRL	76	30-150		
Alachlor [2C]	**22.0**		µg/kg dry	2.75	26.1	BRL	84	30-150		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*5.26*		µg/kg dry		*10.5*		*50*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*5.70*		µg/kg dry		*10.5*		*55*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*7.44*		µg/kg dry		*10.5*		*71*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*4.74*		µg/kg dry		*10.5*		*45*	*30-150*		
Matrix Spike Dup (1720199-MSD1)			**Source: SC42066-07**			Prepared: 05-Dec-17 Analyzed: 06-Dec-17				
alpha-BHC	**13.7**		µg/kg dry	1.41	26.3	BRL	52	30-150	4	30
alpha-BHC [2C]	**13.6**		µg/kg dry	1.81	26.3	BRL	52	30-150	7	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8081B										
Batch 1720199 - SW846 3546										
Matrix Spike Dup (1720199-MSD1)			**Source: SC42066-07**		Prepared: 05-Dec-17 Analyzed: 06-Dec-17					
beta-BHC	**18.0**		µg/kg dry	2.08	26.3	BRL	68	30-150	2	30
beta-BHC [2C]	**17.9**		µg/kg dry	2.06	26.3	BRL	68	30-150	6	30
delta-BHC	**17.6**		µg/kg dry	1.52	26.3	BRL	67	30-150	2	30
delta-BHC [2C]	**16.9**		µg/kg dry	1.84	26.3	BRL	64	30-150	8	30
gamma-BHC (Lindane)	**14.8**		µg/kg dry	1.52	26.3	BRL	56	30-150	4	30
gamma-BHC (Lindane) [2C]	**14.2**		µg/kg dry	1.77	26.3	BRL	54	30-150	7	30
Heptachlor	**16.7**		µg/kg dry	1.76	26.3	BRL	64	30-150	4	30
Heptachlor [2C]	**15.5**		µg/kg dry	1.47	26.3	BRL	59	30-150	9	30
Aldrin	**16.0**		µg/kg dry	1.62	26.3	BRL	61	30-150	2	30
Aldrin [2C]	**15.1**		µg/kg dry	1.96	26.3	BRL	57	30-150	10	30
Heptachlor epoxide	**17.5**		µg/kg dry	1.86	26.3	BRL	67	30-150	3	30
Heptachlor epoxide [2C]	**15.9**		µg/kg dry	1.99	26.3	BRL	60	30-150	8	30
Endosulfan I	**18.7**		µg/kg dry	1.85	26.3	BRL	71	30-150	2	30
Endosulfan I [2C]	**17.2**		µg/kg dry	2.05	26.3	BRL	65	30-150	9	30
Dieldrin	**19.1**		µg/kg dry	1.85	26.3	BRL	73	30-150	0.4	30
Dieldrin [2C]	**17.4**		µg/kg dry	1.91	26.3	BRL	66	30-150	9	30
4,4'-DDE (p,p')	**18.7**		µg/kg dry	1.66	26.3	BRL	71	30-150	0.5	30
4,4'-DDE (p,p') [2C]	**17.1**		µg/kg dry	1.81	26.3	BRL	65	30-150	9	30
Endrin	**21.8**		µg/kg dry	1.85	26.3	BRL	83	30-150	0.05	30
Endrin [2C]	**19.1**		µg/kg dry	1.68	26.3	BRL	72	30-150	9	30
Endosulfan II	**20.2**		µg/kg dry	1.98	26.3	BRL	77	30-150	2	30
Endosulfan II [2C]	**18.7**		µg/kg dry	2.06	26.3	BRL	71	30-150	9	30
4,4'-DDD (p,p')	**19.9**		µg/kg dry	1.83	26.3	BRL	76	30-150	0.5	30
4,4'-DDD (p,p') [2C]	**18.2**		µg/kg dry	2.09	26.3	BRL	69	30-150	9	30
Endosulfan sulfate	**21.1**		µg/kg dry	1.76	26.3	BRL	80	30-150	0.4	30
Endosulfan sulfate [2C]	**19.8**		µg/kg dry	2.12	26.3	BRL	75	30-150	8	30
4,4'-DDT (p,p')	**22.0**		µg/kg dry	1.62	26.3	BRL	84	30-150	0.9	30
4,4'-DDT (p,p') [2C]	**18.5**		µg/kg dry	1.07	26.3	BRL	70	30-150	9	30
Methoxychlor	**23.2**		µg/kg dry	1.86	26.3	BRL	88	30-150	0.1	30
Methoxychlor [2C]	**19.8**		µg/kg dry	1.54	26.3	BRL	75	30-150	6	30
Endrin ketone	**18.8**		µg/kg dry	1.89	26.3	BRL	71	30-150	0.04	30
Endrin ketone [2C]	**17.6**		µg/kg dry	2.12	26.3	BRL	67	30-150	7	30
Endrin aldehyde	**22.3**		µg/kg dry	1.76	26.3	BRL	85	30-150	1	30
Endrin aldehyde [2C]	**22.6**		µg/kg dry	1.99	26.3	BRL	86	30-150	8	30
alpha-Chlordane	**18.1**		µg/kg dry	1.80	26.3	BRL	69	30-150	1	30
alpha-Chlordane [2C]	**17.0**		µg/kg dry	1.92	26.3	BRL	65	30-150	9	30
Chlordane (gamma)(trans)	**18.0**		µg/kg dry	1.89	26.3	BRL	69	30-150	2	30
Chlordane (gamma)(trans) [2C]	**17.1**		µg/kg dry	1.89	26.3	BRL	65	30-150	8	30
Alachlor	**20.5**		µg/kg dry	2.58	26.3	BRL	78	30-150	4	30
Alachlor [2C]	**19.4**		µg/kg dry	2.77	26.3	BRL	74	30-150	13	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*5.08*		µg/kg dry		*10.5*		*48*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*5.56*		µg/kg dry		*10.5*		*53*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*7.59*		µg/kg dry		*10.5*		*72*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*6.39*		µg/kg dry		*10.5*		*61*	*30-150*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 6010C										
Batch 1720443 - SW846 3050B										
Blank (1720443-BLK1)					Prepared: 11-Dec-17 Analyzed: 14-Dec-17					
Arsenic	< 0.189	U	mg/kg wet	0.189						
Duplicate (1720443-DUP1)			**Source: SC42066-01**		Prepared: 11-Dec-17 Analyzed: 14-Dec-17					
Arsenic	**12.8**	QM4	mg/kg dry	0.197		3.90			106	20
Matrix Spike (1720443-MS1)			**Source: SC42066-01**		Prepared: 11-Dec-17 Analyzed: 14-Dec-17					
Arsenic	**93.7**	QM8	mg/kg dry	0.198	130	3.90	69	75-125		
Matrix Spike Dup (1720443-MSD1)			**Source: SC42066-01**		Prepared: 11-Dec-17 Analyzed: 14-Dec-17					
Arsenic	**119**	QM4	mg/kg dry	0.199	131	3.90	88	75-125	24	20
Post Spike (1720443-PS1)			**Source: SC42066-01**		Prepared: 11-Dec-17 Analyzed: 14-Dec-17					
Arsenic	**123**		mg/kg dry	0.199	131	3.90	91	80-120		
Reference (1720443-SRM1)					Prepared: 11-Dec-17 Analyzed: 14-Dec-17					
Arsenic	**63.8**		mg/kg wet	0.190	74.2		86	83-117		
Reference (1720443-SRM2)					Prepared: 11-Dec-17 Analyzed: 14-Dec-17					
Arsenic	**63.0**		mg/kg wet	0.190	74.1		85	83-117		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SM2540 G (11) Mod.										
Batch 1720186 - General Preparation										
Duplicate (1720186-DUP1)			**Source: SC42066-04**			Prepared & Analyzed: 04-Dec-17				
% Solids	**89.0**		%			88.4			0.7	5

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW8151A										
Batch 411796A - 411796-										
BLK (BZ50411-BLK)						Prepared: 05-Dec-17 Analyzed: 06-Dec-17				
2,4,5-TP (Silvex)	**ND**		ug/kg	83				-		
Dicamba	**ND**		ug/kg	83				-		
MCPP	**ND**		ug/kg	25000				-		
MCPA	**ND**		ug/kg	25000				-		
Dinoseb	**ND**		ug/kg	170				-		
Dichloroprop	**ND**		ug/kg	170				-		
Dalapon	**ND**		ug/kg	83				-		
2,4-D	**ND**		ug/kg	170				-		
2,4,5-T	**ND**		ug/kg	83				-		
2,4-DB	**ND**		ug/kg	1700				-		
Surrogate: % DCAA	*39*		ug/kg		*1000*			*30-150*		
LCSD (BZ50411-LCSD)						Prepared: 05-Dec-17 Analyzed: 06-Dec-17				
Dalapon	**57.10**		ug/kg	%	100		57	40-140		30
MCPA	**17310**		ug/kg	%	30000		58	40-140		30
Dinoseb	**54.86**		ug/kg	%	100		55	10-110		20
MCPP	**19280**		ug/kg	%	30000		64	40-140		30
Dicamba	**60.90**		ug/kg	%	100		61	40-140		30
2,4-D	**128.0**		ug/kg	%	200		64	40-140		30
2,4,5-TP (Silvex)	**59.64**		ug/kg	%	100		60	40-140		30
2,4,5-T	**61.16**		ug/kg	%	100		61	40-140		30
Dichloroprop	**139.0**		ug/kg	%	200		70	40-140		30
2,4-DB	**593.7**		ug/kg	%	1000		59	40-140		30
Surrogate: % DCAA	*457.8*		ug/kg		*1000*		*46*	*30-150*		
MS (BZ50411-MS)			**Source: BZ50411**			Prepared: 05-Dec-17 Analyzed: 06-Dec-17				
Dichloroprop	**129.0**		ug/kg	170	200		65	30-150		30
MCPP	**21780**		ug/kg	25000	30000		73	30-150		30
Dinoseb	**65.34**		ug/kg	170	100		65	10-110		20
Dicamba	**55.90**		ug/kg	83	100		56	30-150		30
Dalapon	**55.47**		ug/kg	83	100		55	30-150		30
2,4-D	**120.5**		ug/kg	170	200		60	30-150		30
2,4,5-TP (Silvex)	**59.54**		ug/kg	83	100		60	30-150		30
2,4,5-T	**62.50**		ug/kg	83	100		62	30-150		30
2,4-DB	**705.9**		ug/kg	1700	1000		71	30-150		30
MCPA	**17790**		ug/kg	25000	30000		59	30-150		30
Surrogate: % DCAA	*467.0*		ug/kg		*1000*		*47*	*30-150*		
MSD (BZ50411-MSD)			**Source: BZ50411**			Prepared: 05-Dec-17 Analyzed: 06-Dec-17				
2,4,5-T	**51.67**		%	%	100		52	30-150	17.5	30
MCPA	**16500**		%	%	30000		55	30-150	7.0	30
Dinoseb	**57.47**		%	%	100		57	10-110	13.1	20
Dichloroprop	**111.4**		%	%	200		56	30-150	14.9	30
Dicamba	**48.35**		%	%	100		48	30-150	15.4	30
Dalapon	**44.53**		%	%	100		45	30-150	20.0	30
2,4-DB	**608.6**		%	%	1000		61	30-150	15.2	30
2,4,5-TP (Silvex)	**52.05**		%	%	100		52	30-150	14.3	30
MCPP	**22710**		%	%	30000		76	30-150	4.0	30
2,4-D	**104.5**		%	%	200		52	30-150	14.3	30
Surrogate: % DCAA	*418.5*		%		*1000*		*42*	*30-150*		

Pesticides - Pesticide Breakdown Report

Analyte(s)	Column	% Breakdown	Limit
Batch S710637			
Performance Mix (S710637-PEM1)			
4,4'-DDT (p,p')	1	4.1	15.0
Endrin	1	6.1	15.0
4,4'-DDT (p,p')	2	2.3	15.0
Endrin	2	4.1	15.0
Performance Mix (S710637-PEM2)			
4,4'-DDT (p,p')	1	4.3	15.0
Endrin	1	6.8	15.0
4,4'-DDT (p,p')	2	2.2	15.0
Endrin	2	4.2	15.0

Notes and Definitions

QM4	Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.
QM8	The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.
SGC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
[2C]	Indicates concentration was reported from the secondary, confirmation column.

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.

SC42066 8M

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: GeoInsight Inc.
Littleton, MA 01460
1 Monarch Drive Suite 201
Telephone #: 978 679 1600
Project Mgr: Joel Trifilo

Invoice To: See Report to

P.O No.: _____ Quote/RQN: _____

Project No: 7877
Site Name: ~~Sudbury Sand Pit~~ Melone Property
Location: Sudbury, MA State: MA
Sampler(s): CAS

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=_____ X2=_____ X3=_____

G= Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: Arsenic 6010C	Pesticides 8081 Herbicides 8151A	Check if chlorinated
SC42066-01	SS-1(0-2')	11/30/17	10:10	Soil	Comp		2			X	X	☐
02	SS-2(0-2')		10:40				1			X		☐
03	SS-3(0-2')		11:05				2			X	X	☐
04	SS-4(0-2')		11:35				1			X		☐
05	SS-5(0-2')		12:05				2			X	X	☐
06	SS-6(0-2')		13:30				1			X		☐
07	SS-7(0-2')		13:55				2			X	X	☐
08	SS-8(0-2')		14:25				1			X		☐
												☐
												☐

List Preservative Code below:

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? [x] 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:
Carson Jones 11/30/17	DSR 16:00	12-4-17	1108
DSR	[illegible]	12/4/17	1420

Temp °C: Observed 2.5; Correction Factor 0; Corrected 2.5; IR ID # 1

[ ] EDD format:
[x] E-mail to: JJTrifilo@geoinc.com

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

Batch Summary

'[none]'

Subcontracted Analyses

SC42066-01 (SS-1 (0-2))
SC42066-03 (SS-3 (0-2))
SC42066-05 (SS-5 (0-2))
SC42066-07 (SS-7 (0-2))

1720176

General Chemistry Parameters

SC42066-01 (SS-1 (0-2))
SC42066-02 (SS-2 (0-2))
SC42066-03 (SS-3 (0-2))

1720186

General Chemistry Parameters

1720186-DUP1
SC42066-04 (SS-4 (0-2))
SC42066-05 (SS-5 (0-2))
SC42066-06 (SS-6 (0-2))
SC42066-07 (SS-7 (0-2))
SC42066-08 (SS-8 (0-2))

1720199

Pesticides

1720199-BLK1
1720199-BS1
1720199-BSD1
1720199-DUP1
1720199-MS1
1720199-MSD1
SC42066-01 (SS-1 (0-2))
SC42066-03 (SS-3 (0-2))
SC42066-05 (SS-5 (0-2))
SC42066-07 (SS-7 (0-2))

1720443

Total Metals by EPA 6000/7000 Series Methods

1720443-BLK1
1720443-DUP1
1720443-MS1
1720443-MSD1
1720443-PS1
1720443-SRM1
1720443-SRM2
SC42066-01 (SS-1 (0-2))
SC42066-02 (SS-2 (0-2))
SC42066-03 (SS-3 (0-2))
SC42066-04 (SS-4 (0-2))
SC42066-05 (SS-5 (0-2))
SC42066-06 (SS-6 (0-2))
SC42066-07 (SS-7 (0-2))
SC42066-08 (SS-8 (0-2))

411796A

Subcontracted Analyses

BZ50411-BLK
BZ50411-LCSD
BZ50411-MS
BZ50411-MSD
SC42066-01 (SS-1 (0-2))
SC42066-03 (SS-3 (0-2))
SC42066-05 (SS-5 (0-2))
SC42066-07 (SS-7 (0-2))

S709808

Pesticides

S709808-CAL1
S709808-CAL2
S709808-CAL3
S709808-CAL4
S709808-CAL5
S709808-CAL6
S709808-CAL7
S709808-CAL8
S709808-CAL9
S709808-CALA
S709808-CALB
S709808-CALC
S709808-CALD
S709808-CALE
S709808-CALF
S709808-ICV1
S709808-ICV2
S709808-ICV3
S709808-LCV1
S709808-LCV2
S709808-LCV3

S710637

Pesticides

S710637-CCV1
S710637-CCV2
S710637-CCV3
S710637-CCV4
S710637-CCV5
S710637-CCV6
S710637-IBL1
S710637-IBL2
S710637-PEM1
S710637-PEM2