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Doc #38939

GOLDER

December 21, 2020 Project No. 20394143

Daniel Cook, Environmental Specialist Senior
Iowa Department of Natural Resources
Wallace State Office Building
502 E 9th Street, Des Moines, Iowa 50319

PHASE II ENVIRONMENTAL SITE ASSESSMENT RESULTS, EATON CORPORATION, SHENANDOAH, IOWA

Dear Mr. Cook:

On behalf of Eaton Corporation (Eaton), Golder Associates Inc. (Golder) is submitting the results of a Phase II Environmental Site Assessment at the Eaton facility located at 1600 Airport Road, Shenandoah, Iowa. The results of this investigation indicated that tetrachloroethene, trichloroethene, and/or vinyl chloride were detected in groundwater slightly above the statewide standard for a protected groundwater source in two samples. Eaton is planning for an additional investigation at the Site and will provide a site assessment plan to the Iowa Department of Natural Resources when it is available. If you have any questions regarding the enclosed report, please feel free to contact the undersigned.

Sincerely

Golder Associates Inc.

Anne M. Faeth-Boyd, R.G., P.E. (Missouri)
Associate and Senior Consultant

Frederick M. Booth, P.G. (Wyoming)
Principal and Program Leader

AMF/FMB

CC: Jeff Allen and Lisa Sutton, Eaton Corporation

Attachments: Phase II Environmental Site Assessment, Eaton Corporation, Shenandoah, Iowa

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December 21, 2020 Project No. 20394143

Lisa D. Sutton
Eaton Corporation
Vice President/Chief Counsel – Regulatory Matters
Eaton – Law Department
Mail Code 4N
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Cleveland, Ohio 44122 USA

RE: PHASE II ENVIRONMENTAL SITE ASSESSMENT, EATON CORPORATION, SHENANDOAH, IOWA

Dear Ms. Sutton,

Golder Associates Inc. (Golder) was retained by Eaton Corporation (Eaton) to conduct a Phase II Environmental Site Assessment (ESA) at the Eaton facility (Site) located at 1600 Airport Road, Shenandoah, Iowa (Figure 1). Based on discussions with Eaton, the scope of work included the advancement of nine boreholes and installation of temporary monitoring wells to evaluate subsurface (soil and groundwater) conditions at the Site. This letter summarizes the field procedures and results from the assessment.

1.0 SCOPE OF WORK

The Phase II ESA field program was designed by Golder and included soil and groundwater sampling to assess subsurface conditions at the Site as described in Table 1.

2.0 FIELD PROGRAM

Prior to mobilization to the Site, a Site-specific health and safety environment plan (HASEP) was prepared and the state-required Iowa One Call (811) was submitted in order for public utility companies to mark underground utilities in the vicinity or confirm the area is clear. In addition, Golder and the subcontractors working under Golder reviewed the Site's Environment, Health, and Safety Contractor Handbook prior to initiating field work. Upon arrival at the Site, Golder reviewed the proposed boring locations and discussed private utilities with a Site representative. Golder subcontracted a private utility locate firm, Ground Penetrating Radar Systems Inc. (GPRS), to confirm the proposed borehole locations were clear of underground utilities use ground penetrating radar (GPR) and electromagnetic (EM) tracing and the field engineer followed Golder's internal procedures for authorizing ground disturbance activities.

Environmental Works Inc. (EWI), a licensed driller in the state of Iowa, performed the direct push technology (DPT) drilling and installed temporary monitoring wells for groundwater sampling. Golder provided field oversight of the drilling and temporary well installation work completed by EWI. Golder performed all soil and groundwater sampling activities. The field program was completed November 10-13, 2020.

2.1 Direct Push Drilling and Soil Sampling

A DPT drill rig operated by EWI under direct supervision by Golder was used to advance nine soil borings (BH-01 through BH-09) at the locations shown on Figure 2. The borings were advanced to 25 feet below ground surface (bgs), except for BH-03 where the borehole was advanced to 30 feet bgs due to the lack of saturated soils observed in the recovered soil core.

At all borehole locations, soil was cored continuously to the total depth using five-foot long acetate liner sleeves within the DPT tools. The recovered soil cores were logged in the field by the Golder field geologist. A field boring log detailing the location, depth, and soil type for each soil sample collected was completed by the field engineer for each borehole (see Appendix A). Logging of the soil cores included soil descriptions and visual classifications in accordance with the Unified Soil Classification System (USCS) and standard industry practices. The moisture content of each soil sample was also be noted during the logging process. Soil cores were field screened for volatile organic compounds (VOCs) using a photoionization detector (PID) at 1 to 2-foot intervals. PID readings collected from the recovered soil cores ranged from 0.7 ppm to 25.5 ppm. The highest reading (25.5 ppm) was recorded at 0 to 1 feet bgs in BH-02. One soil sample was collected from each borehole at the depth interval with the highest PID reading above the observed saturated zone. Pertinent data concerning the drilling, field screening, and sampling activities were recorded on the field boring logs provided as Appendix A.

After field screening, a fresh surface was created just prior to collection of the samples for laboratory analysis. The soil samples were collected using laboratory supplied coring devices (Terra Core™ sampler) for analysis of VOCs and by a gloved hand for the other analyses, and were then placed directly into appropriate laboratory containers, labeled and placed in a cooler with ice.

2.2 Groundwater Sampling

Golder collected groundwater samples from all nine borehole locations. After the boreholes were completed to total depth (approximately 30 feet bgs at BH-3 and 25 feet bgs at the other eight locations), a temporary monitoring well, consisting of a one-inch diameter polyvinyl chloride (PVC) riser pipe with a 10-foot long 0.010-inch slotted screen was placed at the bottom of the borehole to allow for groundwater purging and sampling. Prior to purging, the depth to water from ground surface was recorded to the nearest 0.01 foot using an electronic water level meter. The depth to groundwater measured ranged from 9.74 feet to 18.28 feet bgs. Purging and sampling of the temporary wells was conducted using a peristaltic pump.

Where there was sufficient volume (BH-01 through BH-07), groundwater was sampled from the temporary wells after approximately one borehole volume of groundwater had been removed. Groundwater stabilization parameters (specific conductivity, pH, turbidity, and temperature) were measured during purging, except at BH-08 and BH-09 where there was insufficient groundwater volume and a sample was collected as soon as the well recovered enough to allow for sample collection. Samples collected for analysis of dissolved metals were field filtered with a 0.45-micron filter. A groundwater sample collection form for each location was completed by the Golder field engineer. The sample collection forms are included in Appendix B.

After groundwater sampling was complete, the temporary wells were removed, and the boreholes were plugged and abandoned by backfilling the holes with bentonite pellets. The ground surface at each location was repaired to match the original condition (soil or concrete).

2.3 Sample Handling and Laboratory Analysis

All analytical samples were properly labeled as to sample location and depth (if applicable), date and time of collection, sampler's initials, analyses to be performed, preservative(s) used, and project name. This information was then logged on a chain-of-custody form.

Sample coolers were shipped to the analytical laboratory under chain-of-custody protocol for analysis. Soil and groundwater samples were analyzed for the following (also see Tables 1 through 3):

- Volatile organic compounds (VOCs) by EPA method 5035 (for soil preparation) and 8260
- Semivolatile organic compounds (SVOCs) by EPA method 8270
- Resource Conservation and Recovery Act (RCRA) metals by EPA methods 6020 and 7470/7471

2.4 Decontamination and Investigation Derived Waste

Equipment decontamination was conducted in general conformance with American Society for Testing and Materials (ASTM) Standard D 5088-15a (ASTM, 2015). The drill rig was decontaminated upon arrival on-Site with particular attention to the working end and downhole equipment (i.e., rods, etc.). Non-dedicated downhole drilling and sampling equipment was decontaminated prior to use at each location. Decontamination consisted of washing the equipment, including rods, in a potable water and Liquinox™ solution (or equivalent), followed by a potable water rinse. Decontamination of Geoprobe rig equipment was performed in buckets beside the rig at each location.

Investigation Derived Waste (IDW) generated during the Phase II ESA was containerized in 55-gallon steel drums. The IDW drums were labeled and staged at the Site inside the northwest corner of the building at the request of the Site representative. Groundwater and decontamination water was collected in 5-gallon buckets during purging/decontamination and then transferred into a drum. Soil cuttings from the drilling activities were placed in a separate drum. Soil and groundwater analytical data will be used to determine an appropriate disposal method for the IDW. Personal protective equipment (PPE) and general refuse was bagged and disposed of in a general refuse dumpster at the Site.

2.5 Quality Assurance and Quality Control

All investigation procedures, including soil and groundwater sampling, collection of quality assurance and quality control (QA/QC) samples, and borehole abandonment, were conducted in general accordance with industry standard practices. Field QA/QC included one trip blank per media (provided by the laboratory) per cooler of samples submitted for analysis of VOCs.

To confirm the accuracy and reproducibility of the laboratory analytical results, the analytical laboratory implemented a QA/QC program, including laboratory replicate samples, method blanks, control standards, and matrix spike/matrix spike duplicates (MS/MSD). The laboratory QA/QC data generated during the sample analyses is included in the laboratory analytical reports (Appendix C) provided to Golder. In addition, Golder conducted an evaluation of the analytical data, including the QA/QC data (level 2 data validation), and a copy of the level 2 data validation evaluation forms are included in Appendix C. No data was rejected based on the evaluation. Detections listed in the data summary tables with a “J” qualifier are considered estimated values.

3.0 SITE GEOLOGIC AND HYDROGEOLOGIC SETTING

Based on a review of the USGS 2018 Shenandoah West, Iowa topographic quadrangle map, the Site has an elevation of approximately 970-980 feet above mean sea level and the topography is generally flat with a gentle slope to the north and west. According to the United States Department of Agriculture Web Soil Survey, surficial soils at the Site are comprised of silty clay loam, which are described as somewhat poorly drained.

Soils observed during the Phase II ESA were mostly silty clay with trace amounts of fine sand. Saturated soil was encountered during drilling at a depth of approximately 12 to 15 feet bgs.

4.0 ANALYTICAL RESULTS

4.1 Screening Criteria

The Iowa Department of Natural Resources (DNR) has developed statewide standards for the evaluation of soil and groundwater for certain chemicals of concern. The statewide standards for groundwater include standards for a protected groundwater source and a non-protected groundwater source. A protected groundwater source is defined by Iowa DNR as “a saturated bed, formation, or group of formations which has a hydraulic conductivity of at least 0.44 meters per day (m/d) and a total dissolved solids (TDS) concentration of less than 2,500 milligrams per liter (mg/l).” There is no TDS or hydraulic conductivity data available for the Site and therefore the aquifer cannot be ruled out as a protected groundwater source at this time.

4.2 Soil Analytical Detections

Nine soil samples were collected for analysis of VOCs, SVOCs, and metals, and the results are shown on Table 2. The laboratory analytical reports are included in Appendix C. As discussed above, soil results were compared to the Iowa DNR statewide standards. A discussion of the analytes that were detected is provided below.

- Metals: All eight RCRA metals were detected in five of the nine soil samples and only silver and mercury were not detected in all nine soil samples. None of the detections exceeded the statewide standards, except for arsenic which exceeded the statewide standard of 1.9 milligrams per kilogram (mg/Kg) in eight of the nine samples. The concentrations of arsenic detected ranged from 1.4 mg/Kg to 8.6 mg/Kg. Based on the Iowa State-Wide Trace Element Soil Sampling Project prepared by IDNR (dated June 2010), the average background concentration of arsenic in “shallow” soil (0-8 inches) in Iowa is approximately 7.76 mg/Kg and the average background concentration of arsenic in “deep” soil (12-24 inches bgs) is approximately 9.24 mg/Kg. Based on these average background concentrations, the detections of arsenic are attributed to background arsenic and not indicative of issues related to industrial activities at the Site.
- VOCs: Six of the nine soil samples had at least one detection of a VOC. The VOCs detected included: 2-butanone, acetone, benzene, carbon disulfide, and tetrachloroethene (PCE). None of the detections exceeded the statewide standards for soil. PCE was detected in BH-04 only.
- SVOCs: Five of the nine soil samples had at least one detection of a SVOC and a total of 21 different SVOCs were detected. None of the detections exceeded the statewide standards.

4.3 Groundwater Analytical Detections

Nine groundwater samples were collected from the temporary monitoring wells for analysis of VOCs, SVOCs, and metals, and the results are shown on Table 3. The laboratory analytical reports are included in Appendix C. As discussed above, groundwater results were compared to the Iowa DNR statewide standards for both Protected and Non-Protected Groundwater Sources. A discussion of the analytes that were detected in the temporary monitoring wells is provided below.

- Metals: Arsenic and barium were detected in all nine groundwater samples. All eight RCRA metals were detected in at least one groundwater sample except for silver. None of the detections exceeded the statewide standards.
- VOCs: Seven of the nine groundwater samples had at least one detection of a VOC. A total of eight different VOCs were detected and three of the compounds were detected above the statewide standards for a protected groundwater source.
  - The detections of trichloroethene (TCE) in BH-02 (0.0093 mg/L) and BH-04 (0.0091 mg/L) exceeded the statewide standard for a protected groundwater source (0.005 mg/L).
  - The detection of PCE in BH-04 (0.0070 mg/L) exceeded the statewide standard for a protected groundwater source (0.005 mg/L)
  - The detection of vinyl chloride in BH-02 (0.0028 mg/L) also exceeded the statewide standard for a protected groundwater source (0.002 mg/L).
  - None of the detections exceeded the statewide standards for a non-protected groundwater source.
- SVOCs: Five of the nine groundwater samples had at least one detection of a SVOC and a total of 11 different SVOCs were detected. None of the detections exceeded the statewide standards.

5.0 SUMMARY OF FINDINGS AND CONCLUSIONS

Based on the information obtained during the Phase II ESA, Golder has prepared the following summary of findings and conclusions:

- **Soil:**
  - All nine soil samples had multiple low-level detections of metals, but none of the detections exceeded the statewide standards with the exception of arsenic. The concentrations of arsenic detected in soil are within the expected background range for soils in Iowa.
  - Several VOCs and SVOCs were detected at low-level concentrations, but none of the detections exceeded the statewide standards.
- **Groundwater:**
  - All nine groundwater samples had multiple low-level detections of metals, but none of the detections exceeded the statewide standards.

- The concentrations of TCE and vinyl chloride in BH-02 and the concentrations of PCE and TCE in BH-04 exceeded the statewide standards for a protected groundwater source. None of the other detections of VOCs exceeded the statewide standards.
- While there were several detections of SVOCs in groundwater, none of the detections of SVOCs exceeded the statewide standards.

6.0 LIMITATION AND USE OF REPORT

This report was prepared for the exclusive use of Eaton. The report, which specifically includes all tables, figures and appendices, is based on data and information collected during the Site investigation conducted by Golder and is based solely on the conditions of the property at the time of the field investigation, supplemented by historical information and data obtained by Golder as described in this report.

The assessment of environmental conditions and possible hazards at this Site has been made using the results of chemical analysis of discrete soil and groundwater samples from a limited number of locations. The Site conditions between sampling locations have been inferred based on conditions observed at sampling locations. Groundwater conditions may vary from these sample locations. Additional study, including further sampling, can reduce the inherent uncertainties associated with this type of study. However, it is never possible, even with exhaustive sampling and testing, to dismiss the possibility that part of a Site may be contaminated and remain undetected.

The services performed, as described in this report, were conducted in a manner consistent with that level of care and skill normally exercised by other members of the engineering and science professions currently practicing under similar conditions, subject to the time limits and financial and physical constraints applicable to the services. Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. Golder accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The content of this report is based on information collected during our investigation, our present understanding of the Site conditions, and our professional judgment in light of such information at the time of this report. This report provides a professional opinion and therefore no warranty is either expressed, implied, or made as to the conclusions, advice and recommendations offered in this report. This report does not provide a legal opinion regarding compliance with applicable laws. With respect to regulatory compliance issues, it should be noted that regulatory statutes and the interpretation of regulatory statutes are subject to change.

The findings and conclusions of this report are valid only as of the date of this report. If new information is discovered in future work, including excavations, borings, or other studies, Golder should be requested to re-evaluate the conclusions of this report, and to provide amendments as required.

7.0 CLOSURE

Golder appreciates the opportunity to assist Eaton with this project and trusts this report is sufficient for your current needs. Should you require any additional information about this Phase II ESA Report, please feel free to contact the undersigned.

Golder Associates Inc.

Brett E. Forthaus, P.E.
Project Environmental Engineer

Anne M. Faeth-Boyd, R.G./P.G., P.E.
Associate and Senior Consultant

Frederick M. Booth, P.G.
Principal and Program Leader

BEF/AMF/FMB

Attachments:
Figure 1 – Subject Property Location Map
Figure 2 – Boring Location Map
Table 1 – Scope of Work
Table 2 – Soil Analytical Detections Summary
Table 3 – Soil Analytical Results for PFAS
Table 4 – Groundwater Analytical Detections Summary
Table 5– Groundwater Analytical Results for PFAS
Appendix A – Field Boring Logs
Appendix B – Groundwater Sample Collection Forms
Appendix C – Laboratory Analytical Data and Data Validation Reports

Figures

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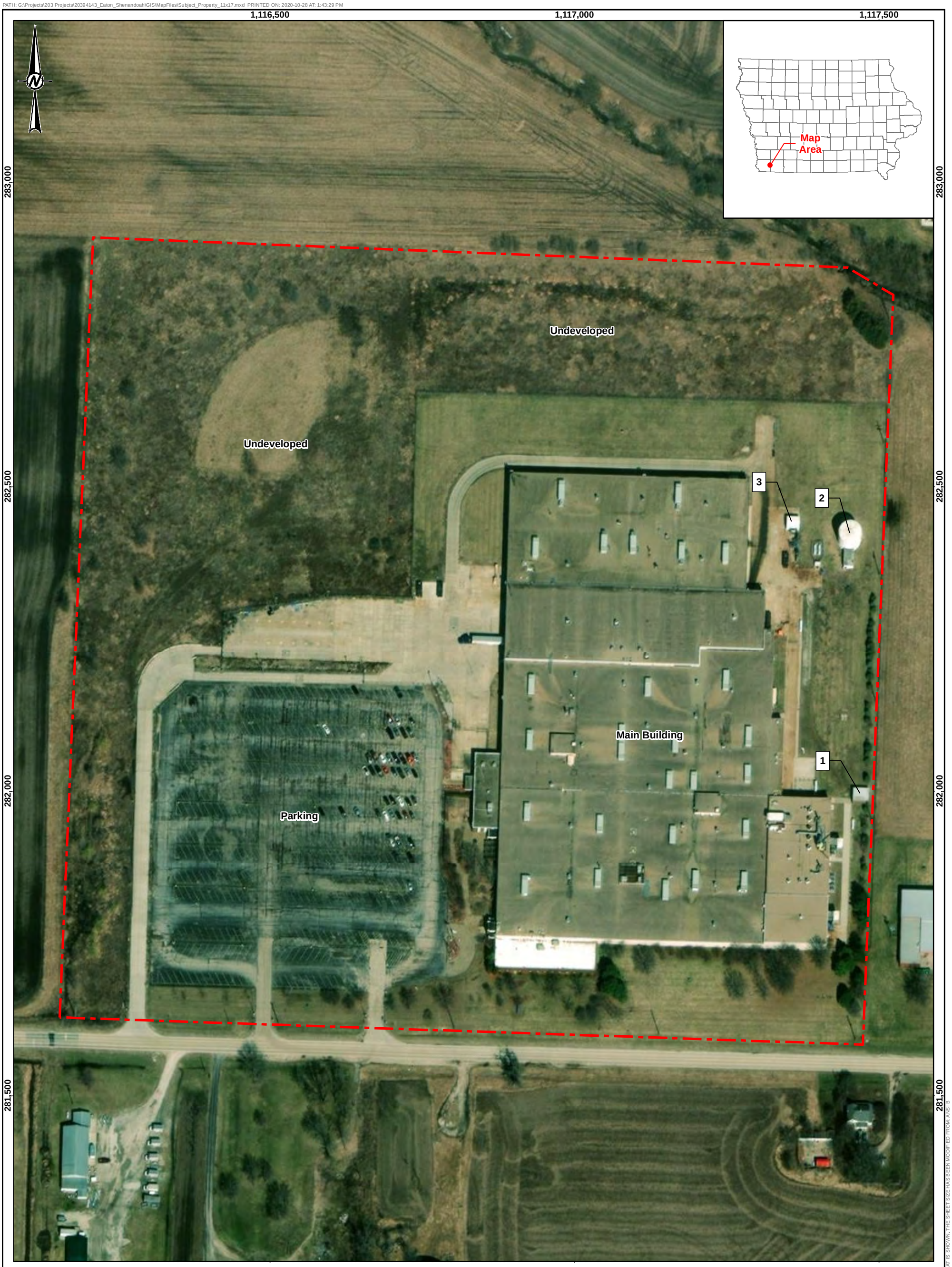

LEGEND

Subject Property

1) Former Heat Storage Building
2) 250,000-gallon water tank
3) Materials storage shed

0 150 300

1 Inch = 150 Feet

Feet

REFERENCE(S)

1. BASEMAP(S): ESRI
2. COORDINATE SYSTEM: NAD 1983 STATEPLANE IOWA SOUTH FIPS 1402 FEET

CLIENT
EATON CORPORATION

PROJECT
EATON CORPORATION, 1600 AIRPORT ROAD, SHENANDOAH, IOWA 51601

TITLE
SUBJECT PROPERTY LOCATION MAP

CONSULTANT
GOLDER

YYYY-MM-DD	2020-10-28
DESIGNED	EFT
PREPARED	EFT
REVIEWED	BEF
APPROVED	AMF

PROJECT NO.	CONTROL	REV.	FIGURE
20394143	-	-	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
1 in
0

1,117,000

1,117,500

282,500

282,000

LEGEND

- Subject Property
- 2010 Investigation Area
- Former UST Area
- Boring Location

0 80 160

1 Inch = 80 Feet Feet

REFERENCE(S)

1. BASEMAP(S): ESRI
2. COORDINATE SYSTEM: NAD 1983 STATEPLANE IOWA SOUTH FIPS 1402 FEET

CLIENT
EATON CORPORATION

PROJECT
EATON CORPORATION, 1600 AIRPORT ROAD, SHENANDOAH, IOWA 51601

TITLE
BORING LOCATION MAP

CONSULTANT
GOLDER

YYYY-MM-DD	2020-12-01
DESIGNED	EFT
PREPARED	EFT
REVIEWED	BEF
APPROVED	AMF

PROJECT NO.	CONTROL	REV.	FIGURE
20394143	-	-	2

Tables

Scope of Work
Eaton - Shenandoah, Iowa

Location	Rationale	Total depth of borehole	Soil			Groundwater		
			VOCs (8260)	SVOCs (8270)	RCRA Metals (6020A/7470)	VOCs (8260)	SVOCs (8270)	Dissolved RCRA Metals (6020A/7470) Field Filtered
BH-01	Interior – Near paint booth cleaning sump. One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (5-7 ft bgs).	25 feet bgs	1	1	1	1	1	1
BH-02	Interior – Near "Pit Area" and scrap dock (area with sumps, trenches, staining, chemical storage, drums). One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (0-1 ft bgs).	25 feet bgs	1	1	1	1	1	1
BH-03	Exterior – North end of former UST Area (groundwater samples not collected when USTs removed). One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (1-3 ft bgs).	30 feet bgs	1	1	1	1	1	1
BH-04	Exterior – Outside of current tank farm area (tank farm is inside the building), there are fill ports on the exterior wall and staining was observed on the inside wall. One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (9-11 ft bgs).	25 feet bgs	1	1	1	1	1	1
BH-05	Exterior – South end of former UST Area (groundwater samples not collected when USTs removed). One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (1-3 ft bgs).	25 feet bgs	1	1	1	1	1	1
BH-06	Exterior – Outside Heat Treat Storage Building (building was formerly the IWWTS, boring placed on the west side of building to the north of the door outside the former pit location). This location was also approximately downgradient of former Waste Oil USTs. One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (9-11 ft bgs).	25 feet bgs	1	1	1	1	1	1
BH-07	Exterior – Boring placed near location of highest concentrations of 2010 Investigation (TB-21). One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (0-1 ft bgs).	25 feet bgs	1	1	1	1	1	1
BH-08	Interior – Nea former rail loading area (east end of rail line used to remove metal chips from Site), away from thick concrete area. One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (3-5 ft bgs).	25 feet bgs	1	1	1	1	1	1
BH-09	Interior – Boring placed on south side of vertical Broach Pit (staining visible inside pit), away from thick concrete area. One soil sample was collected at the depth interval with the highest PID reading above the observed saturated zone (13-15 ft bgs).	25 feet bgs	1	1	1	1	1	1
QA/QC	One trip blank per media was submitted with all shipments of samples submitted for analysis of VOCs.	N/A	1	0	0	1	0	0
TOTAL			10	9	9	10	9	9

Notes:
VOCs - volatile organic compounds
SVOCs - semivolatile organic compounds
RCRA - Resource Conservation Recovery Act
BH - borehole
PID - photoionization detector
bgs - below ground surface
UST - underground storage tank
IWWTS - industrial wastewater treatment system
QA/QC - quality assurance/quality control
N/A - not applicable

Prepared by: BEF 12/15/2020
Checked by: AMF 12/15/2020
Reviewed by: FMB 12/16/2020

Table 2
Summary of Soil Analytical Detections
Eaton - Shenandoah, IA

	UNITS	Iowa Statewide Standards for Soil	BH-01	BH-02	BH-03	BH-04	BH-05	BH-06	BH-07	BH-08	BH-09
Sample Depth	ft bgs		5-7	0-1	1-3	9-11	1-3	9-11	0-1	3-5	13-15
Sample Date			11/11/2020	11/11/2020	11/11/2020	11/11/2020	11/11/2020	11/12/2020	11/12/2020	11/11/2020	11/11/2020
ANALYTE											
Metals											
Arsenic	mg/Kg-dry	1.9	**6.7**	**3.6**	**5.6**	**1.4**	**5.6**	**8.6**	**5.0**	**6.3**	**2.3**
Barium	mg/Kg-dry	15,000	**300**	**300**	**280**	**160**	**130**	**150**	**190**	**190**	**140**
Cadmium	mg/Kg-dry	70	**0.63**	**0.29**	**0.24**	**0.10 J**	**0.16 J**	**0.16 J**	**0.23**	**0.085 J**	**0.10 J**
Chromium	mg/Kg-dry	190	**14**	**15**	**12**	**13**	**9.1**	**13**	**13**	**13**	**11**
Lead	mg/Kg-dry	400	**20**	**10**	**15**	**9.7**	**10**	**20**	**14**	**12**	**11**
Selenium	mg/Kg-dry	390	**2.0**	**2.2**	**1.8**	**1.8**	**1.4**	**1.9**	**1.8**	**1.9**	**1.8**
Silver	mg/Kg-dry	370	**0.079 J**	**0.095 J**	**0.063 J**	**0.088 J**	ND	**0.090 J**	ND	**0.079 J**	**0.083 J**
Mercury	mg/Kg-dry	23	**0.019 J**	ND	ND	**0.029**	**0.017 J**	**0.047**	ND	**0.030**	**0.039**
Volatile Organic Compounds											
2-Butanone (Methyl ethyl ketone)	mg/Kg-dry	46,000	**0.011**	ND	ND	ND	**0.032**	ND	ND	ND	ND
Acetone	mg/Kg-dry	68,000	**0.065**	ND	**0.040**	**0.0068 J**	**0.470**	**0.0082 J**	**0.053**	ND	ND
Benzene	mg/Kg-dry	56	**0.0015 J**	ND	**0.00070 J**	ND	ND	ND	ND	ND	ND
Carbon disulfide	mg/Kg-dry	7,600	ND	ND	ND	ND	**0.0029 J**	ND	**0.0039 J**	ND	ND
Tetrachloroethene	mg/Kg-dry	1,500	ND	ND	ND	**0.00084 J**	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds											
2-Methylnaphthalene	mg/Kg-dry	230	**0.011 J**	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	mg/Kg-dry	6,100	ND	**1.1**	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	mg/Kg-dry	3,400	ND	ND	ND	ND	**0.24**	ND	ND	ND	ND
Acenaphthylene	mg/Kg-dry	1,700	ND	ND	ND	ND	ND	**0.011**	ND	ND	ND
Anthracene	mg/Kg-dry	17,000	ND	ND	ND	ND	**0.64**	ND	**0.0077**	ND	ND
Benzo(a)anthracene	mg/Kg-dry	3.1	ND	ND	ND	ND	**1.4**	ND	**0.010**	ND	ND
Benzo(a)pyrene	mg/Kg-dry	2.3	ND	ND	ND	ND	**1.3**	ND	ND	ND	ND
Benzo(b)fluoranthene	mg/Kg-dry	3.1	ND	ND	ND	ND	**1.6**	ND	**0.015**	ND	ND
Benzo(g,h,i)perylene	mg/Kg-dry	170	ND	ND	ND	ND	**0.84**	ND	ND	ND	ND
Benzo(k)fluoranthene	mg/Kg-dry	31	ND	ND	ND	ND	**0.53**	ND	**0.0070 J**	ND	ND
Bis(2-ethylhexyl)phthalate	mg/Kg-dry	170	ND	ND	ND	ND	ND	**0.51**	**0.045**	ND	ND
Caprolactam	mg/Kg-dry	NL	ND	ND	ND	ND	**0.12 J**	ND	ND	ND	ND
Carbazole	mg/Kg-dry	120	ND	ND	ND	ND	**0.33**	ND	ND	ND	ND
Chrysene	mg/Kg-dry	310	ND	ND	ND	ND	**1.2**	ND	**0.0077**	ND	ND
Dibenzo(a,h)anthracene	mg/Kg-dry	0.31	ND	ND	ND	ND	**0.17**	ND	ND	ND	ND
Dibenzofuran	mg/Kg-dry	76	ND	ND	ND	ND	**0.090**	ND	ND	ND	ND
Fluoranthene	mg/Kg-dry	2,300	ND	**0.022**	ND	ND	**3.8**	**0.11**	**0.028**	ND	ND
Fluorene	mg/Kg-dry	2,300	ND	ND	ND	ND	**0.21**	**0.079**	**0.0093**	ND	ND
Indeno(1,2,3-cd)pyrene	mg/Kg-dry	3.1	ND	ND	ND	ND	**1.0**	ND	ND	ND	ND
Phenanthrene	mg/Kg-dry	1,700	ND	**0.026**	ND	ND	**2.5**	**0.072**	**0.026**	ND	ND
Pyrene	mg/Kg-dry	1,700	ND	**0.013**	ND	ND	**2.9**	**0.12**	**0.015**	ND	ND

Notes:
mg/Kg - milligrams per kilogram
ft bgs - feet below ground surface
NL - not listed
ND - not detected above method detection limit (MDL).
Bold value indicates a detection.
J - Analyte is present at an estimated concentration between the MDL and report limit.
Statewide Standards obtained from the Iowa Department of Natural Resources Cumulative Risk Calculator accessed here: https://programs.iowadnr.gov/riskcalc/Home/statewidestandards.
Green highlighting indicates a detection exceeds the Iowa Statewide Standard for soil.
Data subject to change pending final data validation.

Prepared by: KAB 11/30/2020
Checked by: BEF 12/01/2020
Reviewed by: AMF 12/01/2020

Table 3
Summary of Groundwater Analytical Detections
Eaton - Shenandoah, IA

	UNITS	Iowa Statewide Standards for a Protected Groundwater Source	Iowa Statewide Standards for a Non-Protected Groundwater Source	BH-01	BH-02	BH-03	BH-04	BH-05	BH-06	BH-07	BH-08	BH-09
Sample Date				11/12/2020	11/13/2020	11/12/2020	11/12/2020	11/13/2020	11/12/2020	11/13/2020	11/13/2020	11/12/2020
ANALYTE												
Dissolved Metals												
Arsenic	mg/L	0.01	0.05	**0.00088 J**	**0.0017 J**	**0.00088 J**	**0.00087 J**	**0.00077 J**	**0.0082**	**0.0011 J**	**0.0024 J**	**0.00044 J**
Barium	mg/L	2	10	**0.41**	**0.31**	**0.31**	**0.11**	**0.15**	**0.40**	**0.37**	**0.40**	**0.40**
Cadmium	mg/L	0.005	0.025	**0.00046 J**	ND	ND	ND	ND	**0.00022 J**	**0.00022 J**	**0.00029 J**	**0.00022 J**
Chromium	mg/L	0.1	0.5	ND	**0.0027 J**	ND	**0.0053**	**0.0028 J**	ND	ND	**0.0035 J**	ND
Lead	mg/L	0.015	0.075	ND	ND	ND	ND	ND	ND	ND	**0.0016 J**	ND
Selenium	mg/L	0.05	0.25	ND	**0.00083 J**	ND	ND	ND	ND	ND	**0.00089 J**	**0.00066 J**
Mercury	mg/L	0.002	0.010	**0.00023**	ND	ND	ND	ND	**0.00020**	ND	ND	ND
Volatile Organic Compounds												
1,1-Dichloroethane	mg/L	0.14	0.7	ND	ND	**0.0015**	**0.0039**	**0.0075**	**0.00097 J**	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	mg/L	4	21	ND	ND	ND	ND	ND	ND	ND	**0.00087 J**	ND
Acetone	mg/L	6.3	32	**0.010**	**0.0062 J**	ND	**0.0068 J**	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	mg/L	0.07	0.35	ND	**0.0098**	**0.0084**	**0.0055**	ND	ND	ND	ND	ND
Tetrachloroethene	mg/L	0.005	1.7	ND	**0.00061 J**	ND	**0.0070**	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	mg/L	0.1	0.7	ND	ND	**0.00093 J**	ND	ND	ND	ND	ND	ND
Trichloroethene	mg/L	0.005	0.076	ND	**0.0093**	ND	**0.0091**	ND	ND	ND	ND	ND
Vinyl chloride	mg/L	0.002	0.01	ND	**0.0028**	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds												
2,4-Dimethylphenol	mg/L	0.10	0.7	ND	**0.00072 J**	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	mg/L	0.028	0.14	ND	**0.00016 J**	ND	ND	ND	ND	ND	**0.00012 J**	ND
Anthracene	mg/L	2.1	10	**0.00011 J**	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	mg/L	0.14	1.8	ND	ND	ND	ND	ND	ND	ND	ND	**0.00078 J**
Caprolactam	mg/L	NL	NL	ND	ND	ND	ND	**0.0026 J**	ND	ND	ND	ND
Diethyl phthalate	mg/L	5.6	28	ND	**0.0011 J**	ND	ND	ND	ND	ND	**0.00059 J**	ND
Fluoranthene	mg/L	0.28	1.4	**0.00031 J**	**0.00023 J**	ND	ND	ND	ND	ND	**0.00030 J**	**0.00012 J**
Fluorene	mg/L	0.28	1.4	**0.00024 J**	**0.00015 J**	ND	ND	ND	ND	ND	**0.00012 J**	ND
Naphthalene	mg/L	0.1	0.7	ND	**0.00053 J**	ND	ND	ND	ND	ND	**0.00037 J**	ND
Phenanthrene	mg/L	0.21	1	**0.00091 J**	**0.00072 J**	ND	ND	ND	ND	ND	**0.00070 J**	**0.00030 J**
Pyrene	mg/L	0.21	1	**0.00017 J**	**0.00017 J**	ND	ND	ND	ND	ND	**0.00021 J**	ND

Notes:
mg/L - milligrams per liter
NL - Not Listed
ND - not detected above method detection limit (MDL)
Bold value indicates a detection.
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accessed here: https://programs.iowadnr.gov/riskcalc/Home/statewidestandards.
Blue highlighting indicates a detection exceeds the Iowa Statewide Standard for a Protected Groundwater Source.
Data subject to change pending final data validation.

Prepared by: KAB 11/30/2020
Checked by: BEF 11/30/2020
Reviewed By: AMF 12/01/2020

APPENDIX A

Field Boring Logs

Golder Associates

Field Boring Log

Concrete Coring 0905-0915

DEPTH HOLE 25	PROJ.NO. 20394143	PROJECT Exler Phase II	BORING NO. BH-01
DEPTH SOIL DRILL 25	GA INSP. E. Summ	DRILLING METHOD DPT, Concrete Coring	SHEET 1 OF 1
DEPTH ROCK CORE 6 in	WEATHER NA	DRILLING COMPANY Environmental Works Incorporated	SURFACE ELEV. NA
ABANDONMENT Bentonite		DRILL RIG Geoprobe 7822DT DRILLER A. Stephens	DATUM NA
DEPTHS NA / NA / NA / NA (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE)		SAMPLER HAMMER TYPE NA WT. NA DROP NA	STARTED ~~0905~~ 0927 11/11/20 (TIME / DATE)
DEPTHS (DELAYED) 18.47 / NA / 0710-11/12/20 / NA (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE)		HOLE LOCATION BH-1	COMPLETED 0950 11/11/20 (TIME / DATE)

SAMPLE TYPES

A.S. AUGER SAMPLE
C.S. CHUNK SAMPLE
* D.O. DRIVE OPEN (SPT)
D.S. DENISON SAMPLE
F.S. FOIL SAMPLE
P.S. PITCHER SAMPLE
S.C. SOIL CORE
* T.O. THIN-WALLED, OPEN
* T.P. THIN-WALLED, PISTON
W.S. WASH SAMPLE
* NOTE SIZE

ABBREVIATIONS

ANG ANGULAR	GR GRAY	R RED	BL BLACK	HE HETEROGENEOUS	RES RESIDUAL
BR BROWN	HO HOMOGENEOUS	RX ROCK	C COARSE	LYD LAYERED	RND ROUNDED
CIN CAVE-IN	M MEDIUM	SAT SATURATED	CO COHESIVE	MIC MICACEOUS	SD SAND
CL CLAY	MOT MOTTLED	SI SILT	CLY CLAYEY	MST MOIST	SIY SILTY
D DRY	NC NON-COHESIVE	SM SOME	EL ELONGATED	NP NON-PLASTIC	TR TRACE
F FINE	OG ORANGE	WL WATER LEVEL	FL FLAT	ORG ORGANIC	WH WEIGHT OF HAMMER
FRAG FRAGMENTS	PP POCKET PEN.	WR WEIGHT OF RODS	GL GRAVEL	PL PLASTIC LIMIT	Y YELLOW

ORDER OF DESCRIPTION

CONSTITUENTS: 1) GROUP SYMBOL 2) SOIL GROUP NAME 3) PRIMARY COMPONENTS 4) SECONDARY COMPONENTS 5) MINOR COMPONENTS; (PLUS DESCRIPTION: CL/SI: PLASTICITY; SD: SIZE, GRADING; GL: SIZE, GRADING, SHAPE, ROCK TYPE)
GENERAL: 6) COLOR 7) WEATHERING 8) STRUCTURE 9) SENSITIVITY 10) CONTAMINATION 11) MINEROLOGY 12) ORIGIN;
BEHAVIOR: 13) BEHAVIOR (CO/NC) 14) MOISTURE/WATER CONTENT 15) DENSITY/CONSISTENCY

PROPORTIONS: "TRACE" 0 – 5%; "SOME" 5 – 12%; PREFIX "-Y" 12 – 35%; "AND" 35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION: DRY SOIL FLOWS; MOIST FEELS COOL; WET WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W: W < PL CANNOT ROLL 4 mm THREAD; W ~ PL CAN ROLL THREAD 2 – 4 mm; W > PL CAN ROLL THREAD <2 mm

ELEV. DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC/ATT	GL	SD	CL/SI	CO or NC	MOIST. or W	DENS./CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
0		1	DP		7.8		0	1	99	CO	W<PL	FM		0.0→7" Concrete Slab Core
1														(7"→12") Sand/Fill
2					8.4	3.8/5.0								1.0→5.0 (CL) SILTY CLAY LOW-M PL Fines, 5Y5/2, ~~AE~~ CO, W<PL, fm
3–4					8.1									5.0 - 10.0 SAA Except color/a
5–6					12.2	5.0/5.0								10.-12 SAA
7		2	DP											12.0→~~18~~ 17 SAA Except Color to 10YR6/2 with 10YR6/6 Mottling, soft
8					11.2									17→25.0 SAA, Except ~~moist~~ W~PL, occurrence of tr f sd
9					11.5									
11–12		3	DP		7.6	5.0/5.0				CO	W<PL	S		
14					7.6									
16		4	DP		9.6									
17						5.0				CO	W~PL	VSft	▼	17.0 bw Suspected; Screen from 25→15 ft bgs
18					10.4		0	4	96					BH-01 Sample from 5-7 @ 1005
20					8.0									
21–22		5	DP		9.3	2.5/5.0								

Dec 2012

9.6 23→25.0

GOLDER

Golder Associates

Field Boring Log

7 in Concrete

DEPTH HOLE 25 ft PROJ.NO. 20394143 PROJECT Eaton Shenandoah PMF BORING NO. BH-02

DEPTH SOIL DRILL 25 ft GA INSP. E. Schuder DRILLING METHOD Direct Push SHEET 1 OF 1

DEPTH ROCK CORE 7 in WEATHER NA DRILLING COMPANY Environmental Works Inc SURFACE ELEV. NA

ABANDONMENT Bentonite DRILL RIG Geoprobe 7822DT DRILLER A. Stephens DATUM NA

DEPTHS NA / NA / NA / NA SAMPLER HAMMER TYPE NA WT. NA DROP NA STARTED 1320 / 11/11/20
WATER LEVEL CAVE-IN DATE-TIME NOTE TIME DATE

DEPTHS 14.60 / NA / 11/12/20 - 0720 / NA HOLE LOCATION BH-02 COMPLETED 1350 / 11/11/20
(DELAYED) WATER LEVEL CAVE-IN DATE-TIME NOTE TIME DATE

SAMPLE TYPES

A.S. AUGER SAMPLE
C.S. CHUNK SAMPLE
* D.O. DRIVE OPEN (SPT)
D.S. DENISON SAMPLE
F.S. FOIL SAMPLE
P.S. PITCHER SAMPLE
S.C. SOIL CORE
* T.O. THIN-WALLED, OPEN
* T.P. THIN-WALLED, PISTON
W.S. WASH SAMPLE
* NOTE SIZE

ABBREVIATIONS

ANG ANGULAR	GR GRAY	R RED
BL BLACK	HE HETEROGENEOUS	RES RESIDUAL
BR BROWN	HO HOMOGENEOUS	RX ROCK
C COARSE	LYD LAYERED	RND ROUNDED
CIN CAVE-IN	M MEDIUM	SAT SATURATED
CO COHESIVE	MIC MICACEOUS	SD SAND
CL CLAY	MOT MOTTLED	SI SILT
CLY CLAYEY	MST MOIST	SIY SILTY
D DRY	NC NON-COHESIVE	SM SOME
EL ELONGATED	NP NON-PLASTIC	TR TRACE
F FINE	OG ORANGE	WL WATER LEVEL
FL FLAT	ORG ORGANIC	WH WEIGHT OF HAMMER
FRAG FRAGMENTS	PP POCKET PEN.	WR WEIGHT OF RODS
GL GRAVEL	PL PLASTIC LIMIT	Y YELLOW

ORDER OF DESCRIPTION

CONSTITUENTS: 1) GROUP SYMBOL 2) SOIL GROUP NAME 3) PRIMARY COMPONENTS 4) SECONDARY COMPONENTS 5) MINOR COMPONENTS; (PLUS DESCRIPTION CL/SI: PLASTICITY SD: SIZE, GRADING GL: SIZE, GRADING, SHAPE, ROCK TYPE)
GENERAL: 6) COLOR 7) WEATHERING 8) STRUCTURE 9) SENSITIVITY 10) CONTAMINATION 11) MINEROLOGY 12) ORIGIN;
BEHAVIOR: 13) BEHAVIOR (CO/NC) 14) MOISTURE/WATER CONTENT 15) DENSITY/CONSISTENCY

PROPORTIONS
"TRACE" 0 – 5%
"SOME" 5 – 12%
PREFIX "-Y" 12 – 35%
"AND" 35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION
DRY SOIL FLOWS
MOIST FEELS COOL
WET WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W
W < PL CANNOT ROLL 4 mm THREAD
W ~ PL CAN ROLL THREAD 2 – 4 mm
W > PL CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC AT	CONSTITUENTS GL	SD	CL/SI	BEHAVIOR CO or NC	MOIST. or W	DENS./CONS.	USCS
0					25.5		0	1	99	CO	W<PL	FM	
1					7.8	3.0/5.0							
3					6.7								
6					7.6	4.1/5.0							
7					6.1								
8										CO	W<PL	SFT	
9					6.5								
10						4.1/5.0							
11					5.0								
12.5										CO	W~PL	VSFT	▼
13					3.3								
15					2.0	2.4/5.0							
17					7.0								
19					6.0								
20						3.1/5.0	0	4	96	CO	W~PL	VSFT	
21					6.8								
23					5.2								

Depth markings: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

SAMPLE DESCRIPTION AND DRILLING NOTES

Upon Break through to subslab into subsurface visible odor + PID readings on upper teens → Bottled 20.5 17.8 → 26.2

(1.0 → 5.0) – (CL) SILTY CLAY low - m pl fines tr f sd, co, W<PL, fm, 10YR 2/2.

(5.0 → 8.0) SAA.

8.0 → 12.5 SAA. Except color change to 10YR 6/2, with Fe staining. Soft

12.5 → ~~30~~ 20.0 SAA Except VSFT

20.0 → 25.0 SAA higher sand content
Color change to 10YR 7/4 from 20.0 → 21.5, 21.5 → 25.0 10YR 4/2

BH-02
Sample 0-1 @ 1403
Well screened from ~~25~~ 15-25 ft bgs

Dec 2012

GOLDER

Golder Associates

Field Boring Log

10in Concrete

DEPTH HOLE 30ft PROJ.NO. 20394143 PROJECT Eaton Shermanlock Ph II BORING NO. BH-03

DEPTH SOIL DRILL 30ft GA INSP. E. Schuler DRILLING METHOD Direct Push SHEET 1 OF 2

DEPTH ROCK CORE 10in WEATHER 50's Clear DRILLING COMPANY Environmental Works Inc SURFACE ELEV. NA

ABANDONMENT Bentonite DRILL RIG 7822DT DRILLER A. Stephens DATUM NA

DEPTHS NA / NA / NA / NA (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) SAMPLER HAMMER TYPE NA WT. NA DROP NA STARTED 11:23 (TIME) / 11/11/20 (DATE)

DEPTHS 11.29 / NA / 11/12/20-07:31 / NA (DELAYED) WATER LEVEL / CAVE-IN / DATE-TIME / NOTE HOLE LOCATION BH-03 COMPLETED 14:50 (TIME) / 10/11/20 (DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
* ____	____	
* ____	____	
* ____	____	

* NOTE SIZE

ABBREVIATIONS

ANG	ANGULAR	GR	GRAY	R	RED
BL	BLACK	HE	HETEROGENEOUS	RES	RESIDUAL
BR	BROWN	HO	HOMOGENEOUS	RX	ROCK
C	COARSE	LYD	LAYERED	RND	ROUNDED
CIN	CAVE-IN	M	MEDIUM	SAT	SATURATED
CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
FL	FLAT	ORG	ORGANIC	WH	WEIGHT OF HAMMER
FRAG	FRAGMENTS	PP	POCKET PEN.	WR	WEIGHT OF RODS
GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

ORDER OF DESCRIPTION

CONSTITUENTS
1) GROUP SYMBOL
2) SOIL GROUP NAME
3) PRIMARY COMPONENTS
4) SECONDARY COMPONENTS
5) MINOR COMPONENTS :

PLUS DESCRIPTION
CL/SI: PLASTICITY
SD: SIZE, GRADING
GL: SIZE, GRADING, SHAPE, ROCK TYPE

GENERAL
6) COLOR
7) WEATHERING
8) STRUCTURE
9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN :

BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC / ATT	CONSTITUENTS GL	SD	CL/SI (PROPORTION, SIZE, SHAPE, GRADING, PLASTICITY)	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
0					11.6		0	1	99	Co	w<PL	frm		(0.0 → 5.0) (CL) SILTY CLAY Low-M PL Fine Sd: 10YR 2/2, Co w<PL, frm
1		1	DP		11.8	2.1 / 5.0								(5.0 → 8.0) SAA Except Color to 10YR 3/4 With ~~light Brown~~ 5YR 3/6 mottling / fe stng
3					11.3									(8.0 → 10.0) SAA Except Soft
4														(10.0 → 12.5) SAA
5														(12.5 → 24.5) suspected bdw / SAA Except V Soft w ~ PL
6		2	DP		9.3	3.6 / 5.0								
7					7.2					Co	w<PL	Soft		24.5 → 30.0 (SM) SILTY SAND 5Y 5/2 pg, NP fines nc, w, cp
8					8.1									
10														Sample 2020 BH-03-3 1515 from 1-3
11														Well Screened from 20-30
12		3	DP		10.5	3.6 / 5.0	0	4	96	Co	w~PL	V Soft		
13														
14					10.2									
15														
16					10.1									
17		4	DP			2.8 / 5.0								
18					12.1									
19														
20														
22		5	DP		7.9	3.8 / 5.0								

GOLDER

Golder Associates

Field Boring Log

DEPTH HOLE 30ft	PROJ.NO. 20394143	PROJECT Eaton Shawnderson PH II			BORING NO. BH-03
DEPTH SOIL DRILL 30ft	GA INSP. E.Schreiner	DRILLING METHOD Direct Push			SHEET 2 OF 2
DEPTH ROCK CORE 10.5ft	WEATHER 50's Clear	DRILLING COMPANY Environmental Wells Inc.			SURFACE ELEV. NA
ABANDONMENT Bentonite		DRILL RIG 7822 DT	DRILLER A. Stephens		DATUM NA
DEPTHS NA / NA / NA / NA (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE)		SAMPLER HAMMER TYPE NA	WT. NA	DROP NA	STARTED 1423 (TIME) / 11/11/20 (DATE)
DEPTHS 11.29 / NA / 1722 11-12-20 / NA (DELAYED) WATER LEVEL / CAVE-IN / DATE-TIME / NOTE		HOLE LOCATION BH-03			COMPLETED 1450 (TIME) / 11/11/20 (DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
*	____	
*	____	
*	____	
* NOTE SIZE		

ABBREVIATIONS

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CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
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GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

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9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN ;

BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC / ATT	CONSTITUENTS GL	SD	CL/SI (PROPORTION, SIZE, SHAPE, GRADING, PLASTICITY)	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
				23	9.3	3.4								
				24		5.0	0	4	96	CO	W>PL	VSFT		
				25	9.8									
				26	6.8	5.0	0	70	30	NC	W	CP		
				27		5.0								
				28	6.7									
				29										
				30										

GOLDER

Golder Associates

Field Boring Log

1Ft Concrete

DEPTH HOLE 25ft | PROJ.NO. 20394143 | PROJECT Eaton Shenandoah PH II | BORING NO. BH-04

DEPTH SOIL DRILL 25ft | GA INSP. E. Schneider | DRILLING METHOD Direct Push | SHEET 1 OF 1

DEPTH ROCK CORE 12in | WEATHER 50's Clear | DRILLING COMPANY Environmental Works Inc | SURFACE ELEV. NA

ABANDONMENT Bentonite | DRILL RIG 7822 DT | DRILLER A. Stephens | DATUM NA

DEPTHS (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) NA / NA / NA / NA | SAMPLER HAMMER TYPE NA | WT. NA | DROP NA | STARTED 1610 (TIME) / 11/11/20 (DATE)

DEPTHS (DELAYED) 14.73 / NA / 11/12/20 - 0715 / NA | HOLE LOCATION BH-04 | COMPLETED 1630 (TIME) / 11/11/20 (DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
* ___	___	
* ___	___	
* ___	___	
* NOTE SIZE		

ABBREVIATIONS

ANG	ANGULAR	GR	GRAY	R	RED
BL	BLACK	HE	HETEROGENEOUS	RES	RESIDUAL
BR	BROWN	HO	HOMOGENEOUS	RX	ROCK
C	COARSE	LYD	LAYERED	RND	ROUNDED
CIN	CAVE-IN	M	MEDIUM	SAT	SATURATED
CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
FL	FLAT	ORG	ORGANIC	WH	WEIGHT OF HAMMER
FRAG	FRAGMENTS	PP	POCKET PEN.	WR	WEIGHT OF RODS
GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

ORDER OF DESCRIPTION

CONSTITUENTS
1) GROUP SYMBOL
2) SOIL GROUP NAME
3) PRIMARY COMPONENTS
4) SECONDARY COMPONENTS
5) MINOR COMPONENTS;

PLUS DESCRIPTION:
CL/SI: PLASTICITY
SD: SIZE, GRADING
GL: SIZE, GRADING, SHAPE, ROCK TYPE

GENERAL
6) COLOR
7) WEATHERING
8) STRUCTURE
9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN;

BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC / ATT	CONSTITUENTS GL (PROPORTION, SIZE, SHAPE, GRADING)	SD (PLASTICITY)	CL/SI	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
0					2.5	2.7	0	1	99	CO	W<PL	fm		(0.0 - 5.0) (CL) SILTY CLAY, Low-mod % fines + f sd; 10YR 7/2; CO, W<PL, fm
1		1	DP			5.0								
2					2.7									5.0 → 9.0 SAA Except Col or to 10YR 5/4
3														
4					2.9									9.0 → 10.0 SAA, Except → Soft 0.7ft Section of Discolored (Likely Iron stained material) from 9.2 → 9.4
5						4.3								10 → 11 SAA.
6					2.5	5.0								11.0 → 15.0 SAA Greater Sand content (+r), fe staining throughout
7		2	DP											
8					2.9									15.0 → 20.0 SAA Except V Soft W ~ PL
9														20.0 → 25.0 SAA
10					3.0					CO	W<PL	Sft		
11						2.4								
12		3	DP		3.0	5.2	0	4	96					∇ Suspected GW Table
13														Well Screened from 15 → 25
14					2.8									TD = 25.0
15										CO	W~PL	VSft		2020-BH-04 (9-11) 1640
16		4	DP		3.0	3.0								
17						5.0								
18					3.1									
19														
20					2.6									
21		5	DP			3.5								
22					2.3	5.0								

Dec 2012

23 → 25 → 2.3

GOLDER

Golder Associates

Field Boring Log

DEPTH HOLE 25 | PROJ.NO. 20394143 | PROJECT Enbridge Sherwood Park PMC II | BORING NO. BH-05

DEPTH SOIL DRILL 25 | GA INSP. E. Schwarz | DRILLING METHOD Direct Push | SHEET 1 OF 1

DEPTH ROCK CORE 10" | WEATHER 45°F | DRILLING COMPANY Environmental Works Inc | SURFACE ELEV. NA

ABANDONMENT Bentonite | DRILL RIG Geoprobe 7822 DT | DRILLER A. Stephens | DATUM NA

DEPTHS NA / NA / NA / NA (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) | SAMPLER HAMMER TYPE NA | WT. NA | DROP NA | STARTED 640 (TIME) / 11/11/20 (DATE)

DEPTHS 16.70 / NA / 11/12/20 0727 / NA (DELAYED) (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) | HOLE LOCATION BH-05 | COMPLETED 1655 (TIME) / 11/11/20 (DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
* ___	___	
* ___	___	
* ___	___	

* NOTE SIZE

ABBREVIATIONS

ANG	ANGULAR	GR	GRAY	R	RED
BL	BLACK	HE	HETEROGENEOUS	RES	RESIDUAL
BR	BROWN	HO	HOMOGENEOUS	RX	ROCK
C	COARSE	LYD	LAYERED	RND	ROUNDED
CIN	CAVE-IN	M	MEDIUM	SAT	SATURATED
CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
FL	FLAT	ORG	ORGANIC	WH	WEIGHT OF HAMMER
FRAG	FRAGMENTS	PP	POCKET PEN.	WR	WEIGHT OF RODS
GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

ORDER OF DESCRIPTION

CONSTITUENTS
1) GROUP SYMBOL
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3) PRIMARY COMPONENTS
4) SECONDARY COMPONENTS
5) MINOR COMPONENTS ;

PLUS DESCRIPTION:
CL/SI: PLASTICITY
SD: SIZE, GRADING
GL: SIZE, GRADING, SHAPE, ROCK TYPE

GENERAL
6) COLOR
7) WEATHERING
8) STRUCTURE
9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN ;

BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC / ATT	CONSTITUENTS GL (PROPORTION, SIZE, SHAPE, GRADING)	SD (PLASTICITY)	CL/SI	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
		1	DP	1	9.0	2.2 / 5.0	0	1	99	LO	W<PL	FM		0.0 → 5.0 CL Silty Clay, med PL fines + f sd, CO, W<PL, FM; 10YR 2/2,
				2	9.5									5.0 → 7.5 SAA
				3										7.5 → 9.0 SAA Except Color to 10YR5/4 Soft
				4	8.4									9.0 → 10.0 SAA Except Color change to 10YR6/2 with LB Mottling
				5										10.0 → 15.0 SAA
		2	DP	6	7.9	4.3 / 5.0								12.0 → 15.0 SAA Except W~PL.
				7										15.0 → 20.0 SAA Except Pervasive Deep Fe Stng, VSFT
				8	7.0		0	1	99	LO	W<PL	SFT		20.0 → 25.0 SAA, Less Fe Stng.
				9										1-3 BH-05 1718
				10	5.8									Well Screened 15.0 → 25.0 Ftbgs
		3	DP	11		3.9 / 5.0								
				12	8.2									▽ Suspected water bearing
				13			0	3	99	LO	W~PL	SFT		
				14	6.7									
				15			0	4	99	LO	W~PL	VSFT		
		4	DP	16	6.1	3.9 / 5.0								
				17										
				18	5.3									
				19										
				20	6.3									
		5	DP	21		3.7 / 5.0								
				22	6.1									
				23										
				24	2.1									
				25										

GOLDER

Golder Associates

Field Boring Log

DEPTH HOLE 25 ftbgs | PROJ.NO. 20394143 | PROJECT Baker Shenandoah Ph II | BORING NO. BH-06

DEPTH SOIL DRILL 25.0 | GA INSP. E Schmitt | DRILLING METHOD Direct Push | SHEET 1 OF 1

DEPTH ROCK CORE NA | WEATHER 30's Clear | DRILLING COMPANY Environmental Works Inc | SURFACE ELEV. NA

ABANDONMENT Bentonite | DRILL RIG 7822 DT | DRILLER A. Stephens | DATUM NA

DEPTHS (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) NA / NA / NA / NA | SAMPLER HAMMER TYPE NA | WT. WL | DROP NA | STARTED 0804 (TIME) 11/11/20 (DATE)

DEPTHS (DELAYED) 14.68 (WATER LEVEL) / NA (CAVE-IN) / 11/12/20 - 1241 (DATE-TIME) / NA (NOTE) | HOLE LOCATION BH-06 | COMPLETED 0816 (TIME) 11/12/20 (DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
*	___	___
*	___	___
*	___	___
* NOTE SIZE		

ABBREVIATIONS

ANG	ANGULAR	GR	GRAY	R	RED
BL	BLACK	HE	HETEROGENEOUS	RES	RESIDUAL
BR	BROWN	HO	HOMOGENEOUS	RX	ROCK
C	COARSE	LYD	LAYERED	RND	ROUNDED
CIN	CAVE-IN	M	MEDIUM	SAT	SATURATED
CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
FL	FLAT	ORG	ORGANIC	WH	WEIGHT OF HAMMER
FRAG	FRAGMENTS	PP	POCKET PEN.	WR	WEIGHT OF RODS
GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

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5) MINOR COMPONENTS ;

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GENERAL
6) COLOR
7) WEATHERING
8) STRUCTURE
9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN ;

BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC / ATT	CONSTITUENTS GL	SD	CL/SI (PROPORTION, SIZE, SHAPE, GRADING, PLASTICITY)	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
				1	5.8									(0.0 → 5.0) (CL) SILTY CLAY Low-M PL fines, trf sd, 10YR 2/2; co, wet, fm
		1	DP	2	7.4	3.7 / 5.0	0	1	99	CO	WET	FM		
				3										
				4	7.1									
				5										(5.0 → 6.5) SAA Except Change to SFT Color to 10YR 5/4
				6	8.9	3.7 / 5.0				CO	WET	SFT		
		2	DP	7										(6.5 → 10.0) SAA Except VSFT Color to 5Y 5/2 tr fe Staining (LB)
				8	7.9									
				9										(10.0 → 15.0) SAA
				10	9.5									(15.0 → 20.0) SAA Except w ~ PL VSFT Color Change to 10YR 5/4 Increase in Sd Content
				11										
				12	8.2	3.0 / 5.0								20.0 → 24.0 SAA
		3	DP	13										24.0 → 25.0 SAA Except Color Change to 5Y 5/2
				14	7.5									
				15										WL suspected
				16	7.5		0	4	96	W	W ~ PL	VSFT		Sample BH-6 from 9-11 @ 0830
		4	DP	17										Well Screened from 25 → 15.0 ftbgs
				18	6.3	3.0 / 5.0								
				19										
				20	2.8									
				21		3.6 / 5.0								
		5	DP	22	3.2									
				23										
				24	2.2									
				25										

Dec 2012

GOLDER

Golder Associates

Field Boring Log

DEPTH HOLE 25.0ft bgs | PROJ.NO. 20394143 | PROJECT Eaton Shannahan PHII | BORING NO. BH-07

DEPTH SOIL DRILL 25 | GA INSP. E. Schreiner | DRILLING METHOD Direct Push | SHEET 1 OF 1

DEPTH ROCK CORE NA | WEATHER 30s Clear | DRILLING COMPANY Environmental Works Inc | SURFACE ELEV. NA

ABANDONMENT Bentonite | DRILL RIG 7822DT | DRILLER A. Stephens | DATUM NA

DEPTHS NA / NA / NA / NA (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) | SAMPLER HAMMER TYPE NR | WT. NA | DROP NA | STARTED 0848 / 11/12 (TIME / DATE)

DEPTHS 15.96 / NA / 11/12/20-1312 / NA (DELAYED) WATER LEVEL / CAVE-IN / DATE-TIME / NOTE | HOLE LOCATION BH-07 | COMPLETED 905 / (TIME / DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
* ___	___	
* ___	___	
* ___	___	
* NOTE SIZE		

ABBREVIATIONS

ANG	ANGULAR	GR	GRAY	R	RED
BL	BLACK	HE	HETEROGENEOUS	RES	RESIDUAL
BR	BROWN	HO	HOMOGENEOUS	RX	ROCK
C	COARSE	LYD	LAYERED	RND	ROUNDED
CIN	CAVE-IN	M	MEDIUM	SAT	SATURATED
CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
FL	FLAT	ORG	ORGANIC	WH	WEIGHT OF HAMMER
FRAG	FRAGMENTS	PP	POCKET PEN.	WR	WEIGHT OF RODS
GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

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5) MINOR COMPONENTS ;

PLUS DESCRIPTION
CL/SI: PLASTICITY
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GL: SIZE, GRADING, SHAPE, ROCK TYPE

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6) COLOR
7) WEATHERING
8) STRUCTURE
9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN ;

BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC ATT	CONSTITUENTS GL	SD	CL/SI (PROPORTION SIZE SHAPE GRADING PLASTICITY)	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
					4.5		0	1	99	CO	W>PL	firm		(0.0→5.0) CL Silty Clay, low mPL fines fr f SA; 10yR 2/2; CO, W>PL, fm
				2	4.3									
				3		3.5/5.0								(5.0→6.5) SAA & Reddish Color to 10YR 4/2
				4	3.1									6.5→10.0 SAA Except fr Stiff transition to Soft
				5										10.0→12 ~~SAA Except~~ SAA
				6	2.9									12.0→15.0 SAA Except VSft W>PL
				7		4.0/5.0				CO	W>PL	SFt		15.0→20.0 SAA Except increasing Sand content Shll trace
				8	3.0									20.0→24.5 SAA
				9										24.5→25.0 (SP) SAA/Δ Pg ff sd, mf fines 10YR 5/4; CO NC, W, LP.
				10	3.2									
				11										BH-07 Sampled from 0-1 @ 0925
				12	2.7	2.8/5.0				CO	W>PL	VSft		
				13										
				14	1.9									
				15										
				16	2.3	2.2/5.0	0	4	96					
				17										
				18	1.9									
				19										
				20	1.8									
				21										
				22	1.7	3.2/5.0								
				23										
				24	0.7		0	96	4	NL	W	CP		
				25										

GOLDER

8" of Concrete Slab
Long from 1031 → 1035

Golder Associates
Field Boring Log

DEPTH HOLE 25 | PROJ.NO. 20394143 | PROJECT Eglon Shearwood Ph II | BORING NO. BH-8
DEPTH SOIL DRILL 25 | GA INSP. E. Schneider | DRILLING METHOD Direct Push | SHEET 1 OF 1
DEPTH ROCK CORE 8" | WEATHER NA | DRILLING COMPANY Environmental Wades Incorporated | SURFACE ELEV. NA
ABANDONMENT Bentonite | DRILL RIG DPT 8820 | DRILLER A. Stephens | DATUM NA
DEPTHS (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) NA / NA / NA / NA | SAMPLER HAMMER TYPE NA | WT. NA | DROP NA | STARTED 1042 (TIME) / 11/11/20 (DATE)
DEPTHS (DELAYED) 19.71 / NA / 11/12/20 - 0718 / NA | HOLE LOCATION BH-8, Near Abandoned Railline | COMPLETED (TIME) / 11/11/20 (DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
* ____	____	
* ____	____	
* ____	____	

* NOTE SIZE

ABBREVIATIONS

ANG	ANGULAR	GR	GRAY	R	RED
BL	BLACK	HE	HETEROGENEOUS	RES	RESIDUAL
BR	BROWN	HO	HOMOGENEOUS	RX	ROCK
C	COARSE	LYD	LAYERED	RND	ROUNDED
CIN	CAVE-IN	M	MEDIUM	SAT	SATURATED
CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
FL	FLAT	ORG	ORGANIC	WH	WEIGHT OF HAMMER
FRAG	FRAGMENTS	PP	POCKET PEN.	WR	WEIGHT OF RODS
GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

ORDER OF DESCRIPTION

CONSTITUENTS
1) GROUP SYMBOL
2) SOIL GROUP NAME
3) PRIMARY COMPONENTS
4) SECONDARY COMPONENTS
5) MINOR COMPONENTS :
GENERAL
6) COLOR
7) WEATHERING
8) STRUCTURE
9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN :
BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PLUS DESCRIPTION:
CL/SI: PLASTICITY
SD: SIZE, GRADING
GL: SIZE, GRADING, SHAPE, ROCK TYPE

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC / ATT	CONSTITUENTS GL (PROPORTION)	SD (SIZE, SHAPE, GRADING, PLASTICITY)	CL/SI	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
0		1	DP		14.7	3.1 / 5.0	0	1	99	CO	w~PL	firm		0.0 → 5.0 (CL) SILTY CLAY / Low med PL Fines tr f sd; 10YR 4/2 with 10YR 7/2 mottling
1														
2					16.2									4.0 → 10.0 SAA, Exept Color to 10YR 7/2
3														
4					16.3									10.0 → 15.0 SAA 13 → 15.0 → SAA Except Soft to orange to 10YR 5/2
5		2	DP			5.0 / 5.0								15.0 → 20.0 Slight increase in Sd content Soft w ~ PL
6					15.2									15.0 → 20
7					14.2									20.0 → 25.0 SAA.
8														
9					12.9		0	1	99	CO	w~PL	Soft		
10														
11						4.2 / 5.0								
12		3	DP		14.7									
13														
14					12.4									
15							0	4	96	CO	w~PL	Soft		Assumed Water Level due to increased moisture content of Soil Samples
16		4	DP		13.8	2.3 / 5.0								
17														
18					11.3									11/7 Sample from 3-5ft bgs
19														
20					14.2									11/12/20 By. 11 5ft Past Previous total depth of 20 ft. in effort to reclaim as much H2O for GW Sample as possible Well Screened 15.0 → 25.0
21		5	DP		8.9	5.0 / 5.0								
22														
				23	7.6									
				24	1.5									

GOLDER

Golder Associates

Field Boring Log

1123 Backfill Core to 1128 End Core

DEPTH HOLE 25 PROJ.NO. 20274143 PROJECT Eden Shimmerdeal PH-2 BORING NO. BH-09

DEPTH SOIL DRILL 25 GA INSP. E. Schnurr DRILLING METHOD Direct Push SHEET 1 OF 1

DEPTH ROCK CORE 8in WEATHER NA DRILLING COMPANY Environmental Wells Inc SURFACE ELEV. NA

ABANDONMENT Bentonite DRILL RIG 782 DT DRILLER A. Stephens DATUM NA

DEPTHS NA / NA / NA / NA (WATER LEVEL / CAVE-IN / DATE-TIME / NOTE) SAMPLER HAMMER TYPE NA WT. NA DROP NA STARTED 1135 / 11/11/20 (TIME / DATE)

DEPTHS 17.65 / NA / 11/12/20-0746 / NA (DELAYED) WATER LEVEL / CAVE-IN / DATE-TIME / NOTE HOLE LOCATION BH-09 COMPLETED 1158 / 11/11/20 (TIME / DATE)

SAMPLE TYPES

A.S.	AUGER SAMPLE	
C.S.	CHUNK SAMPLE	
* D.O.	DRIVE OPEN (SPT)	
D.S.	DENISON SAMPLE	
F.S.	FOIL SAMPLE	
P.S.	PITCHER SAMPLE	
S.C.	SOIL CORE	
* T.O.	THIN-WALLED, OPEN	
* T.P.	THIN-WALLED, PISTON	
W.S.	WASH SAMPLE	
*	____	____
*	____	____
*	____	____
* NOTE SIZE		

ABBREVIATIONS

ANG	ANGULAR	GR	GRAY	R	RED
BL	BLACK	HE	HETEROGENEOUS	RES	RESIDUAL
BR	BROWN	HO	HOMOGENEOUS	RX	ROCK
C	COARSE	LYD	LAYERED	RND	ROUNDED
CIN	CAVE-IN	M	MEDIUM	SAT	SATURATED
CO	COHESIVE	MIC	MICACEOUS	SD	SAND
CL	CLAY	MOT	MOTTLED	SI	SILT
CLY	CLAYEY	MST	MOIST	SIY	SILTY
D	DRY	NC	NON-COHESIVE	SM	SOME
EL	ELONGATED	NP	NON-PLASTIC	TR	TRACE
F	FINE	OG	ORANGE	WL	WATER LEVEL
FL	FLAT	ORG	ORGANIC	WH	WEIGHT OF HAMMER
FRAG	FRAGMENTS	PP	POCKET PEN.	WR	WEIGHT OF RODS
GL	GRAVEL	PL	PLASTIC LIMIT	Y	YELLOW

ORDER OF DESCRIPTION

CONSTITUENTS
1) GROUP SYMBOL
2) SOIL GROUP NAME
3) PRIMARY COMPONENTS
4) SECONDARY COMPONENTS
5) MINOR COMPONENTS ;

PLUS DESCRIPTION: CL/SI: PLASTICITY; SD: SIZE, GRADING; GL: SIZE, GRADING, SHAPE, ROCK TYPE

GENERAL
6) COLOR
7) WEATHERING
8) STRUCTURE
9) SENSITIVITY
10) CONTAMINATION
11) MINEROLOGY
12) ORIGIN ;

BEHAVIOR
13) BEHAVIOR (CO/NC)
14) MOISTURE/WATER CONTENT
15) DENSITY/CONSISTENCY

PROPORTIONS

"TRACE"	0 – 5%
"SOME"	5 – 12%
PREFIX "-Y"	12 – 35%
"AND"	35 – 50%

NON-COHESIVE SOILS

RELATIVE DENSITY		BLOWS
VERY LOOSE	VLS	0 – 4
LOOSE	LS	4 – 10
COMPACT	CP	10 – 30
DENSE	DN	30 – 50
VERY DENSE	VDN	>50

MOISTURE CONDITION

DRY	SOIL FLOWS
MOIST	FEELS COOL
WET	WITH FREE WATER

COHESIVE SOILS

CONSISTENCY		PP(TSF)	FINGER PRESSURE
VERY SOFT	VS	<0.25	EXTRUDES
SOFT	S	0.25 - 0.5	MOLDS EASILY
FIRM	FM	0.5 – 1	MOLDS
STIFF	ST	1 – 2	THUMB INDENTS
VERY STIFF	VST	2 – 4	THUMBNAIL INDENTS
HARD	H	>4	RESISTS THUMBNAIL

WATER CONTENT - W

W < PL	CANNOT ROLL 4 mm THREAD
W ~ PL	CAN ROLL THREAD 2 – 4 mm
W > PL	CAN ROLL THREAD <2 mm

ELEV. / DEPTH	LITHOLOGY	SAMPLES NO.	TYPE	DEPTH	PID (PPM)	REC / ATT	CONSTITUENTS GL	SD	CL/SI (PROPORTION, SIZE, SHAPE, GRADING; PLASTICITY)	BEHAVIOR CO or NC	MOIST. or W	DENS./ CONS.	USCS	SAMPLE DESCRIPTION AND DRILLING NOTES
1		1	DP		4.6		0	1	99	CO	WPL	fm		0.0 → 5.0 (CL) SILTY CLAY
						4.1 / 5.0								Wet ⇒ MED. PL fines, Tr f Sd; 10YR 5/4
2					3.9									with Tr 10YR 7/2 mottling; & CO, WPL, fm
														2.0 → 5.0 Color Change to 10YR 7/2.
3														
					4.6									5.0 → 7.0 SAA Except Color Change to
4														7.0 → 10.0 SAA Except Color change from
														10YR 7/2 → 10YR 6/2 with Fe Staining &
5														Change from fm → SFt (5YR 5/6)
					5.1	4.8 / 5.0								10.0 → 12.0 SAA
6														
7														12.0 → 15.0 SAA
8		2	DP		4.3									15.0 → 20.0 SAA, Except VSFt, W-PL, Slight
														Micaceous in Sand.
9														
					4.7									20.0 → 25.0 SAA
10														
11														
					5.0	5.0 / 5.0								
12		3	DP											Sample 13 → 15 @ 1210
13					5.3									
14														
15					5.5	2.2 / 3.0	0	4	96	LO	WPL	VSFt		Assumed to
16														
														Push Advanced 5 Ft to
17														25 Ft bgs. on 11/12/20
		4	DP											Well Screened from 25.0 → 15.0
18					5.0									
19					5.7									
20														
21														
					5.6	3.5 / 5.0								
22														
		5	DP	23	5.2									
				24										
				25	4.9									

GOLDER

APPENDIX B

Groundwater Sample Collection Forms

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Shenandoah phase II Project No. : 20394143

WEATHER CONDITIONS

Temperature NA Weather NA

SAMPLE INFORMATION

Sample Location BH-01 Sample No. BH-01

Sample Date 11/12/20 Time 1810 Sample By TMS

Sample Method Peristaltic Sample Type GRAB

Bennyflurry 1848 11/11/20

Water Level Before Purging: ~~22.86~~ 21.72 - 11/11/20 18.27 - 11/12/20

Well Volume: 0.47 gallons = 3.79 Liters

Volume Water Removed Before Sampling: 1.5L

Water Level Before Sampling: 18.27 - 11/12/20

Water Level After Sampling: 23.63 11/12/20

Appearance of Sample: Light Brown / Turbid

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1854				
Volume Discharge	gals	1L				
pH	Standard	7.81				
Spec. Cond.	mS/cm	1087				
Turbidity	NTU	170				
Temperature	°C	18.8				
Dissolved Oxygen	mg/L	6.43				
Redox Potential	+/- mV	106.9				
Pump Rate	mL/min	200				
Water Level	FT BTOC	25.61				

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOCS	2x1L Amber	No	None
2	Metals	1x250mL PL	YES	HNO3
3	VOCS	3x40mL Glass	No	HCL
5				
6				
7				
8				

REMARKS: Well runs dry after approximately 1.5L @ 1856

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Phase II Shenandoah Project No. : 20394143

WEATHER CONDITIONS

Temperature NA Weather NA

SAMPLE INFORMATION

Sample Location BH-2 Sample No. BH-2

Sample Date 11/13/20 Time 1215 Sample By [illegible]

Sample Method Bailer Sample Type GRAB

1889 Begin Purge - 11/11/20

Water Level Before Purging: 21.19 - 11/11/20 12.40 - 11/13/20

Well Volume: 25ft - 21.19ft = 3.81 0.81 gallons x 1 Liter ~ 3.06 Liters

Volume Water Removed Before Sampling: ~1L

Water Level Before Sampling: 12.40 - 11/13/20

Water Level After Sampling: Dry

Appearance of Sample: Light Brown - turbid

Well Runs Dry after 1L 11/11/20

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1814				
Volume Discharge	L gals	1L				
pH	Standard	8.40				
Spec. Cond.	mS/cm	432				
Turbidity	NTU	>1000				
Temperature	°C	16.1				
Dissolved Oxygen	mg/L	4.04				
Redox Potential	+/- mV	163.7				
Pump Rate	mL/min	200				
Water Level	FT BTOC	DRY				

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC	2x1L Amber	NO	None
2	metals/filtered	1x250mL PL	YES	HNO3
3	VOC's	3x50mL Glass	NO	HCL
5				
6				
7				
8				

REMARKS: NO QA/QC Well Runs Dry after 1L Purging Recovery in Morning Sampling - 11/11/20 Should Facilitate

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Shenandoah PH II Project No. : 20319413

WEATHER CONDITIONS

Temperature 50°F Weather Clear

SAMPLE INFORMATION

Sample Location BH-03 Sample No. BH-03

Sample Date 1/12/20 Time 1115 Sample By EMS

Sample Method Peristaltic Sample Type GRAB

Begin Purge @ 1050

Water Level Before Purging: 11.24

Well Volume: ~~3.71 Gallons~~ 2.93 Gallons

Volume Water Removed Before Sampling: 17.5 L

Water Level Before Sampling: 11.96

Water Level After Sampling: 11.43

Appearance of Sample: light brown / slightly turbid

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1055 1100	1105 1110	1115		
Volume Discharge	L gals	2.5L 5.0L	7.5 10.0	12.5		
pH	Standard	7.60 7.31	7.31 6.95	6.83		
Spec. Cond.	mS/cm	489.8 494.1	489.4 488.7	488.0		
Turbidity	NTU	~~1000~~ 888	236 249	183		
Temperature	°C	14.2 14.1	14.1 14.1	14.0		
Dissolved Oxygen	mg/L	1.07 0.98	0.78 0.65	0.41		
Redox Potential	+/- mV	20.4 -7.2	-24.2 -28.2	-34.4		
Pump Rate	mL/min	500 500	500 500	500		
Water Level	FT BTOC	11.95 11.95	11.96 11.96	11.96		

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC	2x1L	NO	NONE
2	VOC	~~250~~ 40x3mL	NO	HCL
3	Metals (Filtered	250mL PL	YES	HNO3
5				
6				
7				
8				

REMARKS: NONE

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Shenandoah PH II Project No. : 20394143

WEATHER CONDITIONS

Temperature 50°F Weather Clear

SAMPLE INFORMATION

Sample Location BH-04 Sample No. BH-04

Sample Date 11/12/20 Time 1340 Sample By BMS

Sample Method Peristaltic Sample Type GRAB

Begin Purge @ 1142

Water Level Before Purging: 14.53

Well Volume: 1.71 Gallons 6.5L

Volume Water Removed Before Sampling: 4L

Water Level Before Sampling: 14.73 11/12/20, 16.41 11/13/20

Water Level After Sampling: Dry

Appearance of Sample: Brown / Turbid.

Sampled VOC / Metals and 0.5 L of SVOC Sample - 11/12/20

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Measurement
Time	hhmm	1147 1152	1157			
Volume Discharge	~~gals~~ L	1.5 3	4.5			
pH	Standard	8.15 8.90				
Spec. Cond.	mS/cm	619 553				
Turbidity	NTU	>1000 >1000				
Temperature	°C	16.9 17.0				
Dissolved Oxygen	mg/L	2.93 3.57				
Redox Potential	+/- mV	-24.3 -47.5				
Pump Rate	mL/min	300 300				
Water Level	FT BTOC	18.15 21.89				

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC	2x 1L Amber	NO	None
2	VOC	3x 40mL VL	NO	HCL
3	Metals	250mL PL	YES	HNO3
5				
6				
7				
8				

REMARKS: Well Runs dry 11/12/20 after ~4L. @ 1155

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Shenandoah Project No. : 20394143

WEATHER CONDITIONS

Temperature 50's Weather Clear - Wind

SAMPLE INFORMATION

Sample Location BH-05 Sample No. BH-5

Sample Date ~~11/3/20~~ 11/3/20 Time 0835 Sample By EMS

Sample Method Bailer Sample Type GRAB

1211 Begin Purge @ 300 mL/min

Water Level Before Purging: 16.24

Well Volume: 1.43 Gallons 5.41 L

Volume Water Removed Before Sampling: 3L

Water Level Before Sampling: 16.15

Water Level After Sampling: Dry

Appearance of Sample: Brown - Turbid

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1216	1221			
Volume Discharge	L gals	1.5L	3L			
pH	Standard	7.93	8.24			
Spec. Cond.	mS/cm	1009	836			
Turbidity	NTU	>1000	>1000			
Temperature	°C	15.9	16.4			
Dissolved Oxygen	mg/L	4.25	5.69			
Redox Potential	+/- mV	32.0	21.9			
Pump Rate	mL/min	300	300			
Water Level	FT BTOC	20.60	Dry			

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC's	2x1L Amber	NO	NONE
2	Metals	250mL Plastic	YES	HNO3
3	VOC's	3x40mL Glass	NO	HCL
5				
6				
7				
8				

REMARKS: ~~BH~~ Well Runs Dry, 11/2/2020 after 3L Purged

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Shenandoah PH II Project No. : 20394143

WEATHER CONDITIONS

Temperature 50°F Weather Wind Clear

SAMPLE INFORMATION

Sample Location BH-06 Sample No. BH-06

Sample Date 11/12/20 Time 1405 Sample By EMS

Sample Method Peristaltic Sample Type GRAB

Begin Purge @ 1241

Water Level Before Purging: 14.68

Well Volume: 1.68 Gallons 6.35 L

Volume Water Removed Before Sampling: 3.0 L

Water Level Before Sampling: 18.48 - 11/12/20 16.32 - 11/13/20

Water Level After Sampling: DRY

Appearance of Sample: Light Brown - Turbid

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1246	1251			
Volume Discharge	~~gals~~ L	1.5	3.0			
pH	Standard	7.45	7.06			
Spec. Cond.	mS/cm	690	692			
Turbidity	NTU	>1000	>1000			
Temperature	°C	14.5	14.5			
Dissolved Oxygen	mg/L	2.25	1.77			
Redox Potential	+/- mV	55.6	39.6			
Pump Rate	mL/min	300	300			
Water Level	FT BTOC	17.36	25.62			

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC	2x1L Amber	NO	None
2	Metals	250mL PL	YES	HNO3
3	VOC	3x40mL GC	NO	HCL
5				
6				
7				
8				

REMARKS: Well Runs Dry @ 1254 11/12/20

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon — ~~Peristaltic Pump~~, Submersible Pump, Hand Pump — Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Shenandoah Phase II Project No. : 20394143

WEATHER CONDITIONS

Temperature 40°F Weather Windy - Clear

SAMPLE INFORMATION

Sample Location BH-07 Sample No. BH-07

Sample Date 11/12/20 Time 0730 Sample By EMS

Sample Method Bailer Sample Type GRAB

Begin Purge @ 1312 @ 300 mL/min

Water Level Before Purging: 15.96 - 11/12/20 16.11 - 11/13/20

Well Volume: 1.47 Gallons 5.56 L

Volume Water Removed Before Sampling: 6.0 L

Water Level Before Sampling: 16.11 - 11/13/20

Water Level After Sampling: 22.98 - 11/13/20

Appearance of Sample: Light Brown / Turbid

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1317 1322	1327 1332			
Volume Discharge	~~gals~~ L	1.5 3.0	4.5 6.0			
pH	Standard	7.02 6.89	6.85 6.83			
Spec. Cond.	mS/cm	614 612	592 605			
Turbidity	NTU	>1000 >1000	>1000 >1000			
Temperature	°C	13.6 13.6	13.6 13.6			
Dissolved Oxygen	mg/L	0.84 0.85	0.77 0.81			
Redox Potential	+/- mV	40.2 -0.1	-4.8 -8.4			
Pump Rate	mL/min	300 300	300 300			
Water Level	FT BTOC	18.51 20.06	20.90			

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC	2x1L Amber	No	None
2	VOC	3x40mL	NO	HCL
3	Metals	250mL PL	YES	HNO3
5				
6				
7				
8				

REMARKS: Well Runs dry after Purging Volume accumulated 11-12-20

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

(Peristaltic Pump) Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: EATON Shenandoah-PH11 Project No. : 20394143

WEATHER CONDITIONS

Temperature NA Weather NA

SAMPLE INFORMATION

Sample Location BH-08 Sample No. B BA-08

Sample Date 11/13/20 Time 1145 Sample By EMS

Sample Method Bailer Sample Type GRAB

Water Level Before Purging: 19.82

Well Volume: 0.83 Gallons ≈ 3.14 Liters

NA Volume Water Removed Before Sampling: NA

Water Level Before Sampling: 19.82

Water Level After Sampling: Dry

Appearance of Sample: Light Brown - Turbid

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm					
Volume Discharge	gals					
pH	Standard					
Spec. Cond.	mS/cm					
Turbidity	NTU					
Temperature	°C					
Dissolved Oxygen	mg/L					
Redox Potential	+/- mV					
Pump Rate	mL/min					
Water Level	FT BTOC					

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC	1L Amber	No	None
2	VOC	3x40 Glass	No	HCL
3	Metals	250mL	YES	HNO3
5				
6				
7				
8				

REMARKS: No Measurements recorded due to limited Water available for Sample

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

GOLDER

Project Ref: Eaton Shenandoah PH II Project No. : 20394143

WEATHER CONDITIONS

Temperature NA Weather NA

SAMPLE INFORMATION

Sample Location BH-09 Sample No. BH-09

Sample Date 11/12/20 Time 1840 Sample By EMS

Sample Method Peristaltic / Bailer Sample Type GRAB

NA

Water Level Before Purging: 17.27

Well Volume: 1.29 Gallons => 4.88L

Volume Water Removed Before Sampling: NONE

Water Level Before Sampling: 17.65 - 11/12/20, 17.27 11/13/20

Water Level After Sampling: DRY - 11/12/20, 21.93 11/13/20

Appearance of Sample: Light Brown - Turbid

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm					
Volume Discharge	gals					
pH	Standard					
Spec. Cond.	mS/cm					
Turbidity	NTU					
Temperature	°C					
Dissolved Oxygen	mg/L					
Redox Potential	+/- mV					
Pump Rate	mL/min					
Water Level	FT BTOC					

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	SVOC	2x1L Amber	NO	NONE
2	VOC	3x40mL Glass	NO	HCL
3	Metals	250mL PL	YES	HNO3
5				
6				
7				
8				

REMARKS: No field measurements collected due to limited Purge Volume

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

APPENDIX C

Laboratory Analytical Data and Data Validation Reports

01-Dec-2020

Anne Faeth-Boyd
Golder Associates Inc.
13515 Barrett Parkway Drive
Suite 260
Ballwin, MO 63021

Re: **Golder (Phase II Eaton Shenandoah 20394143)** Work Order: **20111403**

Dear Anne,

ALS Environmental received 10 samples on 14-Nov-2020 11:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 89.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Gary Byar

Electronically approved by: Gary Byar

Gary Byar
Project Manager

Report of Laboratory Analysis

Certificate No: IA: 403

ALS Group, USA

Date: 01-Dec-20

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Work Order: **20111403**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20111403-01	2020-BH-01-(5-7) Soil	Soil		11/11/2020 10:05	11/14/2020 11:00	☐
20111403-02	2020-BH-02-(0-1) Soil	Soil		11/11/2020 14:03	11/14/2020 11:00	☐
20111403-03	2020-BH-03-(1-3) Soil	Soil		11/11/2020 15:15	11/14/2020 11:00	☐
20111403-04	2020-BH-04-(9-11) Soil	Soil		11/11/2020 16:40	11/14/2020 11:00	☐
20111403-05	2020-BH-05-(1-3) Soil	Soil		11/11/2020 17:18	11/14/2020 11:00	☐
20111403-06	2020-BH-06-(9-11) Soil	Soil		11/12/2020 08:30	11/14/2020 11:00	☐
20111403-07	2020-BH-07-(0-1) Soil	Soil		11/12/2020 09:25	11/14/2020 11:00	☐
20111403-08	2020-BH-08-(3-5) Soil	Soil		11/11/2020 11:17	11/14/2020 11:00	☐
20111403-09	2020-BH-09-(13-15) Soil	Soil		11/11/2020 12:10	11/14/2020 11:00	☐
20111403-10	Trip Blank	Soil		11/11/2020	11/14/2020 11:00	☐

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-01-(5-7) Soil
Collection Date: 11/11/2020 10:05 AM

Work Order: 20111403
Lab ID: 20111403-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			Method: **SW7471B**		Prep: SW7471 / 11/30/20		Analyst: **MAC**
Mercury	**0.019**	J	**0.017**	**0.025**	**mg/Kg-dry**	1	12/1/2020 08:26
METALS BY ICP-MS			Method: **SW6020B**		Prep: SW3050B / 11/17/20		Analyst: **STP**
Arsenic	**6.7**		**0.057**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:12
Barium	**300**		**4.4**	**4.8**	**mg/Kg-dry**	10	11/18/2020 15:05
Cadmium	**0.63**		**0.029**	**0.19**	**mg/Kg-dry**	1	11/17/2020 21:12
Chromium	**14**		**0.21**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:12
Lead	**20**		**0.23**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:12
Selenium	**2.0**		**0.44**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:12
Silver	**0.079**	J	**0.063**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:12
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: **SW846 8270D**		Prep: SW3546 / 11/18/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.0066	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2,4,5-Trichlorophenol	U		0.024	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2,4,6-Trichlorophenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2,4-Dichlorophenol	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2,4-Dimethylphenol	U		0.021	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2,4-Dinitrophenol	U		0.30	0.81	mg/Kg-dry-dry	1	11/20/2020 20:02
2,4-Dinitrotoluene	U		0.026	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2,6-Dinitrotoluene	U		0.027	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2-Chloronaphthalene	U		0.0057	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
2-Chlorophenol	U		0.013	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2-Methylnaphthalene	**0.011**		**0.0041**	**0.0081**	**mg/Kg-dry-dry**	1	11/20/2020 20:02
2-Methylphenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2-Nitroaniline	U		0.023	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
2-Nitrophenol	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
3&4-Methylphenol	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
3,3´-Dichlorobenzidine	U		0.019	0.20	mg/Kg-dry-dry	1	11/20/2020 20:02
3-Nitroaniline	U		0.024	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
4,6-Dinitro-2-methylphenol	U		0.034	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
4-Bromophenyl phenyl ether	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
4-Chloro-3-methylphenol	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
4-Chloroaniline	U		0.021	0.082	mg/Kg-dry-dry	1	11/20/2020 20:02
4-Chlorophenyl phenyl ether	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
4-Nitroaniline	U		0.063	0.20	mg/Kg-dry-dry	1	11/20/2020 20:02
4-Nitrophenol	U		0.095	0.20	mg/Kg-dry-dry	1	11/20/2020 20:02
Acenaphthene	U		0.0059	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Acenaphthylene	U		0.0070	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Acetophenone	U		0.0064	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-01-(5-7) Soil
Collection Date: 11/11/2020 10:05 AM

Work Order: 20111403
Lab ID: 20111403-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.0057	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Atrazine	U		0.024	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Benzaldehyde	U		0.062	0.082	mg/Kg-dry-dry	1	11/20/2020 20:02
Benzo(a)anthracene	U		0.0070	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Benzo(a)pyrene	U		0.0050	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Benzo(b)fluoranthene	U		0.0060	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Benzo(g,h,i)perylene	U		0.0062	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Benzo(k)fluoranthene	U		0.0061	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Bis(2-chloroethoxy)methane	U		0.026	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Bis(2-chloroethyl)ether	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Bis(2-chloroisopropyl)ether	U		0.0095	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Bis(2-ethylhexyl)phthalate	U		0.034	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Butyl benzyl phthalate	U		0.051	0.082	mg/Kg-dry-dry	1	11/20/2020 20:02
Caprolactam	U		0.062	0.082	mg/Kg-dry-dry	1	11/20/2020 20:02
Carbazole	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Chrysene	U		0.0066	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Dibenzo(a,h)anthracene	U		0.0044	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Dibenzofuran	U		0.0060	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Diethyl phthalate	U		0.014	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Dimethyl phthalate	U		0.0079	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Di-n-butyl phthalate	U		0.025	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Di-n-octyl phthalate	U		0.035	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Fluoranthene	U		0.0039	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Fluorene	U		0.0059	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Hexachlorobenzene	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Hexachlorobutadiene	U		0.0096	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Hexachlorocyclopentadiene	U		0.038	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Hexachloroethane	U		0.017	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Indeno(1,2,3-cd)pyrene	U		0.0056	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Isophorone	U		0.0079	0.20	mg/Kg-dry-dry	1	11/20/2020 20:02
Naphthalene	U		0.0052	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Nitrobenzene	U		0.014	0.20	mg/Kg-dry-dry	1	11/20/2020 20:02
N-Nitrosodi-n-propylamine	U		0.0067	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
N-Nitrosodiphenylamine	U		0.023	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Pentachlorophenol	U		0.032	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Phenanthrene	U		0.0038	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Phenol	U		0.020	0.040	mg/Kg-dry-dry	1	11/20/2020 20:02
Pyrene	U		0.0077	0.0081	mg/Kg-dry-dry	1	11/20/2020 20:02
Surr: 2,4,6-Tribromophenol	*54.4*			*38-92*	*%REC*	1	11/20/2020 20:02
Surr: 2-Fluorobiphenyl	*52.5*			*44-107*	*%REC*	1	11/20/2020 20:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-01-(5-7) Soil
Collection Date: 11/11/2020 10:05 AM

Work Order: 20111403
Lab ID: 20111403-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*70.8*			*37-109*	*%REC*	1	11/20/2020 20:02
Surr: 4-Terphenyl-d14	*50.1*	S		*52-123*	*%REC*	1	11/20/2020 20:02
Surr: Nitrobenzene-d5	*43.8*			*41-94*	*%REC*	1	11/20/2020 20:02
Surr: Phenol-d6	*77.2*			*28-111*	*%REC*	1	11/20/2020 20:02
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00077	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,1,2,2-Tetrachloroethane	U		0.00062	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,1,2-Trichloroethane	U		0.00065	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,1,2-Trichlorotrifluoroethane	U		0.0011	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,1-Dichloroethane	U		0.00060	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,1-Dichloroethene	U		0.00096	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,2,4-Trichlorobenzene	U		0.0011	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,2-Dibromo-3-chloropropane	U		0.00097	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,2-Dibromoethane	U		0.00035	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,2-Dichlorobenzene	U		0.00068	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,2-Dichloroethane	U		0.00055	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,2-Dichloropropane	U		0.00043	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,3-Dichlorobenzene	U		0.00060	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
1,4-Dichlorobenzene	U		0.00062	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
2-Butanone	**0.011**		**0.0050**	**0.0098**	**mg/Kg-dry-dry**	0.776	11/24/2020 13:53
2-Hexanone	U		0.0018	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
4-Methyl-2-pentanone	U		0.0018	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Acetone	**0.065**		**0.0045**	**0.0098**	**mg/Kg-dry-dry**	0.776	11/24/2020 13:53
Benzene	**0.0015**	J	**0.00051**	**0.0049**	**mg/Kg-dry-dry**	0.776	11/24/2020 13:53
Bromodichloromethane	U		0.00059	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Bromoform	U		0.00049	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Bromomethane	U		0.0024	0.0098	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Carbon disulfide	U		0.00058	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Carbon tetrachloride	U		0.00098	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Chlorobenzene	U		0.00061	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Chloroethane	U		0.0019	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Chloroform	U		0.00080	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Chloromethane	U		0.00098	0.0098	mg/Kg-dry-dry	0.776	11/24/2020 13:53
cis-1,2-Dichloroethene	U		0.00053	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
cis-1,3-Dichloropropene	U		0.00059	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Cyclohexane	U		0.0017	0.0098	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Dibromochloromethane	U		0.00050	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Dichlorodifluoromethane	U		0.0024	0.0098	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Ethylbenzene	U		0.00085	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-01-(5-7) Soil
Collection Date: 11/11/2020 10:05 AM

Work Order: 20111403
Lab ID: 20111403-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00083	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Methyl acetate	U		0.0012	0.0098	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Methyl tert-butyl ether	U		0.00060	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Methylcyclohexane	U		0.0015	0.0098	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Methylene chloride	U		0.0060	0.0098	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Styrene	U		0.00073	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Tetrachloroethene	U		0.00087	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Toluene	U		0.00084	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
trans-1,2-Dichloroethene	U		0.00049	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
trans-1,3-Dichloropropene	U		0.00047	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Trichloroethene	U		0.00070	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Trichlorofluoromethane	U		0.00069	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Vinyl chloride	U		0.00068	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Xylenes, Total	U		0.0021	0.0049	mg/Kg-dry-dry	0.776	11/24/2020 13:53
Surr: 1,2-Dichloroethane-d4	*103*			*83-132*	*%REC*	0.776	11/24/2020 13:53
Surr: 4-Bromofluorobenzene	*100*			*83-111*	*%REC*	0.776	11/24/2020 13:53
Surr: Dibromofluoromethane	*100*			*77-125*	*%REC*	0.776	11/24/2020 13:53
Surr: Toluene-d8	*101*			*86-108*	*%REC*	0.776	11/24/2020 13:53
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**20**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-02-(0-1) Soil
Collection Date: 11/11/2020 02:03 PM

Work Order: 20111403
Lab ID: 20111403-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 11/17/20		Analyst: **MAC**
Mercury	U		0.017	0.025	mg/Kg-dry	1	11/18/2020 16:24
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 11/17/20		Analyst: **STP**
Arsenic	**3.6**		**0.053**	**0.44**	**mg/Kg-dry**	1	11/17/2020 21:14
Barium	**300**		**4.1**	**4.4**	**mg/Kg-dry**	10	11/18/2020 15:07
Cadmium	**0.29**		**0.026**	**0.18**	**mg/Kg-dry**	1	11/17/2020 21:14
Chromium	**15**		**0.19**	**0.44**	**mg/Kg-dry**	1	11/17/2020 21:14
Lead	**10**		**0.21**	**0.44**	**mg/Kg-dry**	1	11/17/2020 21:14
Selenium	**2.2**		**0.41**	**0.44**	**mg/Kg-dry**	1	11/17/2020 21:14
Silver	**0.095**	J	**0.058**	**0.44**	**mg/Kg-dry**	1	11/17/2020 21:14
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 11/18/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.0068	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2,4,5-Trichlorophenol	U		0.025	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2,4,6-Trichlorophenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2,4-Dichlorophenol	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2,4-Dimethylphenol	U		0.022	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2,4-Dinitrophenol	U		0.31	0.84	mg/Kg-dry-dry	1	11/20/2020 20:26
2,4-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2,6-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2-Chloronaphthalene	U		0.0058	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
2-Chlorophenol	U		0.013	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2-Methylnaphthalene	U		0.0043	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
2-Methylphenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2-Nitroaniline	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
2-Nitrophenol	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
3&4-Methylphenol	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
3,3´-Dichlorobenzidine	U		0.020	0.21	mg/Kg-dry-dry	1	11/20/2020 20:26
3-Nitroaniline	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
4,6-Dinitro-2-methylphenol	U		0.035	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
4-Bromophenyl phenyl ether	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
4-Chloro-3-methylphenol	**1.1**		**0.012**	**0.041**	**mg/Kg-dry-dry**	1	11/20/2020 20:26
4-Chloroaniline	U		0.021	0.084	mg/Kg-dry-dry	1	11/20/2020 20:26
4-Chlorophenyl phenyl ether	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
4-Nitroaniline	U		0.065	0.21	mg/Kg-dry-dry	1	11/20/2020 20:26
4-Nitrophenol	U		0.098	0.21	mg/Kg-dry-dry	1	11/20/2020 20:26
Acenaphthene	U		0.0060	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Acenaphthylene	U		0.0073	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Acetophenone	U		0.0065	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-02-(0-1) Soil
Collection Date: 11/11/2020 02:03 PM

Work Order: 20111403
Lab ID: 20111403-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.0059	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Atrazine	U		0.025	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Benzaldehyde	U		0.064	0.084	mg/Kg-dry-dry	1	11/20/2020 20:26
Benzo(a)anthracene	U		0.0072	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Benzo(a)pyrene	U		0.0051	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Benzo(b)fluoranthene	U		0.0062	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Benzo(g,h,i)perylene	U		0.0064	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Benzo(k)fluoranthene	U		0.0063	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Bis(2-chloroethoxy)methane	U		0.026	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Bis(2-chloroethyl)ether	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Bis(2-chloroisopropyl)ether	U		0.0098	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Bis(2-ethylhexyl)phthalate	U		0.035	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Butyl benzyl phthalate	U		0.052	0.084	mg/Kg-dry-dry	1	11/20/2020 20:26
Caprolactam	U		0.064	0.084	mg/Kg-dry-dry	1	11/20/2020 20:26
Carbazole	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Chrysene	U		0.0068	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Dibenzo(a,h)anthracene	U		0.0045	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Dibenzofuran	U		0.0061	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Diethyl phthalate	U		0.014	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Dimethyl phthalate	U		0.0082	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Di-n-butyl phthalate	U		0.026	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Di-n-octyl phthalate	U		0.036	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Fluoranthene	**0.022**		**0.0040**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 20:26
Fluorene	U		0.0061	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Hexachlorobenzene	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Hexachlorobutadiene	U		0.0099	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Hexachlorocyclopentadiene	U		0.040	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Hexachloroethane	U		0.017	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Indeno(1,2,3-cd)pyrene	U		0.0058	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Isophorone	U		0.0082	0.21	mg/Kg-dry-dry	1	11/20/2020 20:26
Naphthalene	U		0.0053	0.0084	mg/Kg-dry-dry	1	11/20/2020 20:26
Nitrobenzene	U		0.014	0.21	mg/Kg-dry-dry	1	11/20/2020 20:26
N-Nitrosodi-n-propylamine	U		0.0069	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
N-Nitrosodiphenylamine	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Pentachlorophenol	U		0.033	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Phenanthrene	**0.026**		**0.0039**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 20:26
Phenol	U		0.021	0.041	mg/Kg-dry-dry	1	11/20/2020 20:26
Pyrene	**0.013**		**0.0079**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 20:26
Surr: 2,4,6-Tribromophenol	*50.2*			*38-92*	*%REC*	1	11/20/2020 20:26
Surr: 2-Fluorobiphenyl	*54.5*			*44-107*	*%REC*	1	11/20/2020 20:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-02-(0-1) Soil
Collection Date: 11/11/2020 02:03 PM

Work Order: 20111403
Lab ID: 20111403-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*72.2*			*37-109*	*%REC*	1	11/20/2020 20:26
Surr: 4-Terphenyl-d14	*52.8*			*52-123*	*%REC*	1	11/20/2020 20:26
Surr: Nitrobenzene-d5	*59.9*			*41-94*	*%REC*	1	11/20/2020 20:26
Surr: Phenol-d6	*81.4*			*28-111*	*%REC*	1	11/20/2020 20:26
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**		Prep: SW5035 / 11/18/20		Analyst: **MF**
1,1,1-Trichloroethane	U		0.021	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,1,2,2-Tetrachloroethane	U		0.020	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,1,2-Trichloroethane	U		0.019	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,1,2-Trichlorotrifluoroethane	U		0.029	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,1-Dichloroethane	U		0.017	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,1-Dichloroethene	U		0.015	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,2,4-Trichlorobenzene	U		0.052	0.15	mg/Kg-dry	1	11/20/2020 22:35
1,2-Dibromo-3-chloropropane	U		0.042	0.15	mg/Kg-dry	1	11/20/2020 22:35
1,2-Dibromoethane	U		0.013	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,2-Dichlorobenzene	U		0.017	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,2-Dichloroethane	U		0.069	0.15	mg/Kg-dry	1	11/20/2020 22:35
1,2-Dichloropropane	U		0.034	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,3-Dichlorobenzene	U		0.015	0.046	mg/Kg-dry	1	11/20/2020 22:35
1,4-Dichlorobenzene	U		0.011	0.046	mg/Kg-dry	1	11/20/2020 22:35
2-Butanone	U		0.038	0.31	mg/Kg-dry	1	11/20/2020 22:35
2-Hexanone	U		0.023	0.046	mg/Kg-dry	1	11/20/2020 22:35
4-Methyl-2-pentanone	U		0.043	0.046	mg/Kg-dry	1	11/20/2020 22:35
Acetone	U		0.14	0.15	mg/Kg-dry	1	11/20/2020 22:35
Benzene	U		0.022	0.046	mg/Kg-dry	1	11/20/2020 22:35
Bromodichloromethane	U		0.026	0.046	mg/Kg-dry	1	11/20/2020 22:35
Bromoform	U		0.019	0.046	mg/Kg-dry	1	11/20/2020 22:35
Bromomethane	U		0.088	0.15	mg/Kg-dry	1	11/20/2020 22:35
Carbon disulfide	U		0.024	0.046	mg/Kg-dry	1	11/20/2020 22:35
Carbon tetrachloride	U		0.018	0.046	mg/Kg-dry	1	11/20/2020 22:35
Chlorobenzene	U		0.015	0.046	mg/Kg-dry	1	11/20/2020 22:35
Chloroethane	U		0.045	0.15	mg/Kg-dry	1	11/20/2020 22:35
Chloroform	U		0.017	0.046	mg/Kg-dry	1	11/20/2020 22:35
Chloromethane	U		0.13	0.15	mg/Kg-dry	1	11/20/2020 22:35
cis-1,2-Dichloroethene	U		0.029	0.046	mg/Kg-dry	1	11/20/2020 22:35
cis-1,3-Dichloropropene	U		0.035	0.046	mg/Kg-dry	1	11/20/2020 22:35
Cyclohexane	U		0.041	0.15	mg/Kg-dry	1	11/20/2020 22:35
Dibromochloromethane	U		0.026	0.046	mg/Kg-dry	1	11/20/2020 22:35
Dichlorodifluoromethane	U		0.055	0.15	mg/Kg-dry	1	11/20/2020 22:35
Ethylbenzene	U		0.0097	0.046	mg/Kg-dry	1	11/20/2020 22:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143) **Work Order:** 20111403
Sample ID: 2020-BH-02-(0-1) Soil **Lab ID:** 20111403-02
Collection Date: 11/11/2020 02:03 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.014	0.046	mg/Kg-dry	1	11/20/2020 22:35
Methyl acetate	U		0.055	0.38	mg/Kg-dry	1	11/20/2020 22:35
Methyl tert-butyl ether	U		0.013	0.046	mg/Kg-dry	1	11/20/2020 22:35
Methylcyclohexane	U		0.017	0.046	mg/Kg-dry	1	11/20/2020 22:35
Methylene chloride	U		0.12	0.38	mg/Kg-dry	1	11/20/2020 22:35
Styrene	U		0.018	0.046	mg/Kg-dry	1	11/20/2020 22:35
Tetrachloroethene	U		0.028	0.046	mg/Kg-dry	1	11/20/2020 22:35
Toluene	U		0.013	0.046	mg/Kg-dry	1	11/20/2020 22:35
trans-1,2-Dichloroethene	U		0.017	0.046	mg/Kg-dry	1	11/20/2020 22:35
trans-1,3-Dichloropropene	U		0.026	0.046	mg/Kg-dry	1	11/20/2020 22:35
Trichloroethene	U		0.021	0.046	mg/Kg-dry	1	11/20/2020 22:35
Trichlorofluoromethane	U		0.023	0.046	mg/Kg-dry	1	11/20/2020 22:35
Vinyl chloride	U		0.030	0.046	mg/Kg-dry	1	11/20/2020 22:35
Xylenes, Total	U		0.061	0.14	mg/Kg-dry	1	11/20/2020 22:35
Surr: 1,2-Dichloroethane-d4	*104*			*70-130*	*%REC*	1	11/20/2020 22:35
Surr: 4-Bromofluorobenzene	*106*			*70-130*	*%REC*	1	11/20/2020 22:35
Surr: Dibromofluoromethane	*103*			*70-130*	*%REC*	1	11/20/2020 22:35
Surr: Toluene-d8	*102*			*70-130*	*%REC*	1	11/20/2020 22:35
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**21**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-03-(1-3) Soil
Collection Date: 11/11/2020 03:15 PM

Work Order: 20111403
Lab ID: 20111403-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 11/17/20		Analyst: **MAC**
Mercury	U		0.014	0.020	mg/Kg-dry	1	11/18/2020 16:26
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 11/17/20		Analyst: **STP**
Arsenic	**5.6**		**0.054**	**0.45**	**mg/Kg-dry**	1	11/17/2020 21:16
Barium	**280**		**4.1**	**4.5**	**mg/Kg-dry**	10	11/18/2020 15:08
Cadmium	**0.24**		**0.027**	**0.18**	**mg/Kg-dry**	1	11/17/2020 21:16
Chromium	**12**		**0.20**	**0.45**	**mg/Kg-dry**	1	11/17/2020 21:16
Lead	**15**		**0.21**	**0.45**	**mg/Kg-dry**	1	11/17/2020 21:16
Selenium	**1.8**		**0.41**	**0.45**	**mg/Kg-dry**	1	11/17/2020 21:16
Silver	**0.063**	J	**0.059**	**0.45**	**mg/Kg-dry**	1	11/17/2020 21:16
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 11/18/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.0065	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2,4,5-Trichlorophenol	U		0.024	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2,4,6-Trichlorophenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2,4-Dichlorophenol	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2,4-Dimethylphenol	U		0.021	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2,4-Dinitrophenol	U		0.29	0.80	mg/Kg-dry-dry	1	11/20/2020 20:50
2,4-Dinitrotoluene	U		0.026	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2,6-Dinitrotoluene	U		0.026	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2-Chloronaphthalene	U		0.0056	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
2-Chlorophenol	U		0.013	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2-Methylnaphthalene	U		0.0041	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
2-Methylphenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2-Nitroaniline	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
2-Nitrophenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
3&4-Methylphenol	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
3,3´-Dichlorobenzidine	U		0.019	0.20	mg/Kg-dry-dry	1	11/20/2020 20:50
3-Nitroaniline	U		0.023	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
4,6-Dinitro-2-methylphenol	U		0.033	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
4-Bromophenyl phenyl ether	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
4-Chloro-3-methylphenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
4-Chloroaniline	U		0.020	0.081	mg/Kg-dry-dry	1	11/20/2020 20:50
4-Chlorophenyl phenyl ether	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
4-Nitroaniline	U		0.062	0.20	mg/Kg-dry-dry	1	11/20/2020 20:50
4-Nitrophenol	U		0.094	0.20	mg/Kg-dry-dry	1	11/20/2020 20:50
Acenaphthene	U		0.0058	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Acenaphthylene	U		0.0069	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Acetophenone	U		0.0063	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-03-(1-3) Soil
Collection Date: 11/11/2020 03:15 PM

Work Order: 20111403
Lab ID: 20111403-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.0056	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Atrazine	U		0.023	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Benzaldehyde	U		0.062	0.081	mg/Kg-dry-dry	1	11/20/2020 20:50
Benzo(a)anthracene	U		0.0069	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Benzo(a)pyrene	U		0.0049	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Benzo(b)fluoranthene	U		0.0060	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Benzo(g,h,i)perylene	U		0.0061	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Benzo(k)fluoranthene	U		0.0061	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Bis(2-chloroethoxy)methane	U		0.025	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Bis(2-chloroethyl)ether	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Bis(2-chloroisopropyl)ether	U		0.0094	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Bis(2-ethylhexyl)phthalate	U		0.033	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Butyl benzyl phthalate	U		0.050	0.081	mg/Kg-dry-dry	1	11/20/2020 20:50
Caprolactam	U		0.062	0.081	mg/Kg-dry-dry	1	11/20/2020 20:50
Carbazole	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Chrysene	U		0.0065	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Dibenzo(a,h)anthracene	U		0.0043	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Dibenzofuran	U		0.0059	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Diethyl phthalate	U		0.014	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Dimethyl phthalate	U		0.0078	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Di-n-butyl phthalate	U		0.025	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Di-n-octyl phthalate	U		0.035	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Fluoranthene	U		0.0038	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Fluorene	U		0.0058	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Hexachlorobenzene	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Hexachlorobutadiene	U		0.0094	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Hexachlorocyclopentadiene	U		0.038	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Hexachloroethane	U		0.017	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Indeno(1,2,3-cd)pyrene	U		0.0056	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Isophorone	U		0.0078	0.20	mg/Kg-dry-dry	1	11/20/2020 20:50
Naphthalene	U		0.0051	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Nitrobenzene	U		0.013	0.20	mg/Kg-dry-dry	1	11/20/2020 20:50
N-Nitrosodi-n-propylamine	U		0.0066	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
N-Nitrosodiphenylamine	U		0.023	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Pentachlorophenol	U		0.032	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Phenanthrene	U		0.0037	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Phenol	U		0.020	0.040	mg/Kg-dry-dry	1	11/20/2020 20:50
Pyrene	U		0.0076	0.0080	mg/Kg-dry-dry	1	11/20/2020 20:50
Surr: 2,4,6-Tribromophenol	*47.6*			*38-92*	*%REC*	1	11/20/2020 20:50
Surr: 2-Fluorobiphenyl	*53.5*			*44-107*	*%REC*	1	11/20/2020 20:50

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-03-(1-3) Soil
Collection Date: 11/11/2020 03:15 PM

Work Order: 20111403
Lab ID: 20111403-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*69.3*			*37-109*	*%REC*	1	11/20/2020 20:50
Surr: 4-Terphenyl-d14	*45.0*	S		*52-123*	*%REC*	1	11/20/2020 20:50
Surr: Nitrobenzene-d5	*62.1*			*41-94*	*%REC*	1	11/20/2020 20:50
Surr: Phenol-d6	*76.6*			*28-111*	*%REC*	1	11/20/2020 20:50
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00083	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,1,2,2-Tetrachloroethane	U		0.00067	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,1,2-Trichloroethane	U		0.00070	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,1,2-Trichlorotrifluoroethane	U		0.0012	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,1-Dichloroethane	U		0.00065	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,1-Dichloroethene	U		0.0010	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,2,4-Trichlorobenzene	U		0.0012	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,2-Dibromo-3-chloropropane	U		0.0010	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,2-Dibromoethane	U		0.00038	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,2-Dichlorobenzene	U		0.00073	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,2-Dichloroethane	U		0.00059	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,2-Dichloropropane	U		0.00046	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,3-Dichlorobenzene	U		0.00064	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
1,4-Dichlorobenzene	U		0.00067	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
2-Butanone	U		0.0053	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
2-Hexanone	U		0.0019	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
4-Methyl-2-pentanone	U		0.0019	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Acetone	**0.040**		**0.0048**	**0.010**	**mg/Kg-dry-dry**	0.836	11/24/2020 14:10
Benzene	**0.00070**	J	**0.00054**	**0.0052**	**mg/Kg-dry-dry**	0.836	11/24/2020 14:10
Bromodichloromethane	U		0.00063	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Bromoform	U		0.00052	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Bromomethane	U		0.0026	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Carbon disulfide	U		0.00062	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Carbon tetrachloride	U		0.0010	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Chlorobenzene	U		0.00066	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Chloroethane	U		0.0020	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Chloroform	U		0.00086	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Chloromethane	U		0.0010	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
cis-1,2-Dichloroethene	U		0.00057	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
cis-1,3-Dichloropropene	U		0.00063	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Cyclohexane	U		0.0018	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Dibromochloromethane	U		0.00053	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Dichlorodifluoromethane	U		0.0026	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Ethylbenzene	U		0.00091	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143) **Work Order:** 20111403
Sample ID: 2020-BH-03-(1-3) Soil **Lab ID:** 20111403-03
Collection Date: 11/11/2020 03:15 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00089	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Methyl acetate	U		0.0013	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Methyl tert-butyl ether	U		0.00064	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Methylcyclohexane	U		0.0016	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Methylene chloride	U		0.0065	0.010	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Styrene	U		0.00079	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Tetrachloroethene	U		0.00093	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Toluene	U		0.00090	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
trans-1,2-Dichloroethene	U		0.00052	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
trans-1,3-Dichloropropene	U		0.00050	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Trichloroethene	U		0.00075	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Trichlorofluoromethane	U		0.00074	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Vinyl chloride	U		0.00073	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Xylenes, Total	U		0.0023	0.0052	mg/Kg-dry-dry	0.836	11/24/2020 14:10
Surr: 1,2-Dichloroethane-d4	*102*			*83-132*	*%REC*	0.836	11/24/2020 14:10
Surr: 4-Bromofluorobenzene	*104*			*83-111*	*%REC*	0.836	11/24/2020 14:10
Surr: Dibromofluoromethane	*105*			*77-125*	*%REC*	0.836	11/24/2020 14:10
Surr: Toluene-d8	*103*			*86-108*	*%REC*	0.836	11/24/2020 14:10
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**20**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143) **Work Order:** 20111403
Sample ID: 2020-BH-04-(9-11) Soil **Lab ID:** 20111403-04
Collection Date: 11/11/2020 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 11/17/20		Analyst: **MAC**
Mercury	**0.029**		**0.017**	**0.025**	**mg/Kg-dry**	1	11/18/2020 16:28
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 11/17/20		Analyst: **STP**
Arsenic	**1.4**		**0.057**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:18
Barium	**160**		**0.44**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:18
Cadmium	**0.10**	J	**0.029**	**0.19**	**mg/Kg-dry**	1	11/17/2020 21:18
Chromium	**13**		**0.21**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:18
Lead	**9.7**		**0.23**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:18
Selenium	**1.8**		**0.44**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:18
Silver	**0.088**	J	**0.063**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:18
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 11/18/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.0067	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2,4,5-Trichlorophenol	U		0.025	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2,4,6-Trichlorophenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2,4-Dichlorophenol	U		0.022	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2,4-Dimethylphenol	U		0.021	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2,4-Dinitrophenol	U		0.30	0.83	mg/Kg-dry-dry	1	11/20/2020 21:14
2,4-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2,6-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2-Chloronaphthalene	U		0.0058	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
2-Chlorophenol	U		0.013	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2-Methylnaphthalene	U		0.0042	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
2-Methylphenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2-Nitroaniline	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
2-Nitrophenol	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
3&4-Methylphenol	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
3,3´-Dichlorobenzidine	U		0.019	0.21	mg/Kg-dry-dry	1	11/20/2020 21:14
3-Nitroaniline	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
4,6-Dinitro-2-methylphenol	U		0.035	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
4-Bromophenyl phenyl ether	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
4-Chloro-3-methylphenol	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
4-Chloroaniline	U		0.021	0.083	mg/Kg-dry-dry	1	11/20/2020 21:14
4-Chlorophenyl phenyl ether	U		0.011	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
4-Nitroaniline	U		0.064	0.21	mg/Kg-dry-dry	1	11/20/2020 21:14
4-Nitrophenol	U		0.097	0.21	mg/Kg-dry-dry	1	11/20/2020 21:14
Acenaphthene	U		0.0060	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Acenaphthylene	U		0.0072	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Acetophenone	U		0.0065	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-04-(9-11) Soil
Collection Date: 11/11/2020 04:40 PM

Work Order: 20111403
Lab ID: 20111403-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.0058	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Atrazine	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Benzaldehyde	U		0.064	0.083	mg/Kg-dry-dry	1	11/20/2020 21:14
Benzo(a)anthracene	U		0.0071	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Benzo(a)pyrene	U		0.0051	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Benzo(b)fluoranthene	U		0.0062	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Benzo(g,h,i)perylene	U		0.0063	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Benzo(k)fluoranthene	U		0.0063	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Bis(2-chloroethoxy)methane	U		0.026	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Bis(2-chloroethyl)ether	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Bis(2-chloroisopropyl)ether	U		0.0097	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Bis(2-ethylhexyl)phthalate	U		0.034	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Butyl benzyl phthalate	U		0.052	0.083	mg/Kg-dry-dry	1	11/20/2020 21:14
Caprolactam	U		0.064	0.083	mg/Kg-dry-dry	1	11/20/2020 21:14
Carbazole	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Chrysene	U		0.0067	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Dibenzo(a,h)anthracene	U		0.0045	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Dibenzofuran	U		0.0061	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Diethyl phthalate	U		0.014	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Dimethyl phthalate	U		0.0081	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Di-n-butyl phthalate	U		0.025	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Di-n-octyl phthalate	U		0.036	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Fluoranthene	U		0.0040	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Fluorene	U		0.0060	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Hexachlorobenzene	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Hexachlorobutadiene	U		0.0097	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Hexachlorocyclopentadiene	U		0.039	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Hexachloroethane	U		0.017	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Indeno(1,2,3-cd)pyrene	U		0.0058	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Isophorone	U		0.0081	0.21	mg/Kg-dry-dry	1	11/20/2020 21:14
Naphthalene	U		0.0053	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Nitrobenzene	U		0.014	0.21	mg/Kg-dry-dry	1	11/20/2020 21:14
N-Nitrosodi-n-propylamine	U		0.0068	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
N-Nitrosodiphenylamine	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Pentachlorophenol	U		0.033	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Phenanthrene	U		0.0038	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Phenol	U		0.021	0.041	mg/Kg-dry-dry	1	11/20/2020 21:14
Pyrene	U		0.0078	0.0083	mg/Kg-dry-dry	1	11/20/2020 21:14
Surr: 2,4,6-Tribromophenol	*68.5*			*38-92*	*%REC*	1	11/20/2020 21:14
Surr: 2-Fluorobiphenyl	*74.7*			*44-107*	*%REC*	1	11/20/2020 21:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-04-(9-11) Soil
Collection Date: 11/11/2020 04:40 PM

Work Order: 20111403
Lab ID: 20111403-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*69.2*			*37-109*	*%REC*	1	11/20/2020 21:14
Surr: 4-Terphenyl-d14	*78.4*			*52-123*	*%REC*	1	11/20/2020 21:14
Surr: Nitrobenzene-d5	*72.5*			*41-94*	*%REC*	1	11/20/2020 21:14
Surr: Phenol-d6	*76.8*			*28-111*	*%REC*	1	11/20/2020 21:14
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00074	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,1,2,2-Tetrachloroethane	U		0.00060	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,1,2-Trichloroethane	U		0.00063	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,1,2-Trichlorotrifluoroethane	U		0.0010	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,1-Dichloroethane	U		0.00058	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,1-Dichloroethene	U		0.00092	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,2,4-Trichlorobenzene	U		0.0010	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,2-Dibromo-3-chloropropane	U		0.00093	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,2-Dibromoethane	U		0.00034	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,2-Dichlorobenzene	U		0.00066	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,2-Dichloroethane	U		0.00053	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,2-Dichloropropane	U		0.00041	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,3-Dichlorobenzene	U		0.00057	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
1,4-Dichlorobenzene	U		0.00060	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
2-Butanone	U		0.0048	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
2-Hexanone	U		0.0017	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
4-Methyl-2-pentanone	U		0.0017	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Acetone	**0.0068**	J	**0.0043**	**0.0094**	**mg/Kg-dry-dry**	0.747	11/24/2020 14:26
Benzene	U		0.00049	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Bromodichloromethane	U		0.00057	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Bromoform	U		0.00047	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Bromomethane	U		0.0024	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Carbon disulfide	U		0.00056	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Carbon tetrachloride	U		0.00094	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Chlorobenzene	U		0.00059	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Chloroethane	U		0.0018	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Chloroform	U		0.00077	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Chloromethane	U		0.00094	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
cis-1,2-Dichloroethene	U		0.00051	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
cis-1,3-Dichloropropene	U		0.00057	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Cyclohexane	U		0.0016	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Dibromochloromethane	U		0.00048	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Dichlorodifluoromethane	U		0.0024	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Ethylbenzene	U		0.00082	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-04-(9-11) Soil
Collection Date: 11/11/2020 04:40 PM

Work Order: 20111403
Lab ID: 20111403-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00080	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Methyl acetate	U		0.0011	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Methyl tert-butyl ether	U		0.00057	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Methylcyclohexane	U		0.0014	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Methylene chloride	U		0.0058	0.0094	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Styrene	U		0.00071	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Tetrachloroethene	**0.00084**	J	**0.00084**	**0.0047**	**mg/Kg-dry-dry**	0.747	11/24/2020 14:26
Toluene	U		0.00081	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
trans-1,2-Dichloroethene	U		0.00047	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
trans-1,3-Dichloropropene	U		0.00045	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Trichloroethene	U		0.00068	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Trichlorofluoromethane	U		0.00067	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Vinyl chloride	U		0.00066	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Xylenes, Total	U		0.0021	0.0047	mg/Kg-dry-dry	0.747	11/24/2020 14:26
Surr: 1,2-Dichloroethane-d4	*108*			*83-132*	*%REC*	0.747	11/24/2020 14:26
Surr: 4-Bromofluorobenzene	*104*			*83-111*	*%REC*	0.747	11/24/2020 14:26
Surr: Dibromofluoromethane	*106*			*77-125*	*%REC*	0.747	11/24/2020 14:26
Surr: Toluene-d8	*95.9*			*86-108*	*%REC*	0.747	11/24/2020 14:26
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**21**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-05-(1-3) Soil
Collection Date: 11/11/2020 05:18 PM

Work Order: 20111403
Lab ID: 20111403-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			Method:**SW7471B**		Prep: SW7471 / 11/18/20		Analyst: **MAC**
Mercury	**0.017**	J	**0.016**	**0.023**	**mg/Kg-dry**	1	11/18/2020 19:03
METALS BY ICP-MS			Method:**SW6020B**		Prep: SW3050B / 11/17/20		Analyst: **STP**
Arsenic	**5.6**		**0.062**	**0.51**	**mg/Kg-dry**	1	11/17/2020 21:20
Barium	**130**		**0.47**	**0.51**	**mg/Kg-dry**	1	11/17/2020 21:20
Cadmium	**0.16**	J	**0.031**	**0.21**	**mg/Kg-dry**	1	11/17/2020 21:20
Chromium	**9.1**		**0.23**	**0.51**	**mg/Kg-dry**	1	11/17/2020 21:20
Lead	**10**		**0.25**	**0.51**	**mg/Kg-dry**	1	11/17/2020 21:20
Selenium	**1.4**		**0.47**	**0.51**	**mg/Kg-dry**	1	11/17/2020 21:20
Silver	U		0.068	0.51	mg/Kg-dry	1	11/17/2020 21:20
SEMI-VOLATILE ORGANIC COMPOUNDS			Method:**SW846 8270D**		Prep: SW3546 / 11/18/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.012	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2,4,5-Trichlorophenol	U		0.044	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2,4,6-Trichlorophenol	U		0.020	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2,4-Dichlorophenol	U		0.040	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2,4-Dimethylphenol	U		0.038	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2,4-Dinitrophenol	U		0.54	1.5	mg/Kg-dry-dry	1	11/20/2020 21:37
2,4-Dinitrotoluene	U		0.048	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2,6-Dinitrotoluene	U		0.048	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2-Chloronaphthalene	U		0.010	0.015	mg/Kg-dry-dry	1	11/20/2020 21:37
2-Chlorophenol	U		0.023	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2-Methylnaphthalene	U		0.0075	0.015	mg/Kg-dry-dry	1	11/20/2020 21:37
2-Methylphenol	U		0.020	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2-Nitroaniline	U		0.041	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
2-Nitrophenol	U		0.021	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
3&4-Methylphenol	U		0.040	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
3,3´-Dichlorobenzidine	U		0.035	0.37	mg/Kg-dry-dry	1	11/20/2020 21:37
3-Nitroaniline	U		0.043	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
4,6-Dinitro-2-methylphenol	U		0.062	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
4-Bromophenyl phenyl ether	U		0.041	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
4-Chloro-3-methylphenol	U		0.021	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
4-Chloroaniline	U		0.038	0.15	mg/Kg-dry-dry	1	11/20/2020 21:37
4-Chlorophenyl phenyl ether	U		0.020	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
4-Nitroaniline	U		0.11	0.37	mg/Kg-dry-dry	1	11/20/2020 21:37
4-Nitrophenol	U		0.17	0.37	mg/Kg-dry-dry	1	11/20/2020 21:37
Acenaphthene	**0.24**		**0.011**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Acenaphthylene	U		0.013	0.015	mg/Kg-dry-dry	1	11/20/2020 21:37
Acetophenone	U		0.012	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-05-(1-3) Soil
Collection Date: 11/11/2020 05:18 PM

Work Order: 20111403
Lab ID: 20111403-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	**0.64**		**0.010**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Atrazine	U		0.043	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Benzaldehyde	U		0.11	0.15	mg/Kg-dry-dry	1	11/20/2020 21:37
Benzo(a)anthracene	**1.4**		**0.013**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Benzo(a)pyrene	**1.3**		**0.0091**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Benzo(b)fluoranthene	**1.6**		**0.011**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Benzo(g,h,i)perylene	**0.84**		**0.011**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Benzo(k)fluoranthene	**0.53**		**0.011**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Bis(2-chloroethoxy)methane	U		0.047	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Bis(2-chloroethyl)ether	U		0.021	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Bis(2-chloroisopropyl)ether	U		0.017	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Bis(2-ethylhexyl)phthalate	U		0.061	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Butyl benzyl phthalate	U		0.093	0.15	mg/Kg-dry-dry	1	11/20/2020 21:37
Caprolactam	**0.12**	J	**0.11**	**0.15**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Carbazole	**0.33**		**0.022**	**0.073**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Chrysene	**1.2**		**0.012**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Dibenzo(a,h)anthracene	**0.17**		**0.0080**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Dibenzofuran	**0.090**		**0.011**	**0.073**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Diethyl phthalate	U		0.025	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Dimethyl phthalate	U		0.014	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Di-n-butyl phthalate	U		0.045	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Di-n-octyl phthalate	U		0.064	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Fluoranthene	**3.8**		**0.0071**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Fluorene	**0.21**		**0.011**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Hexachlorobenzene	U		0.022	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Hexachlorobutadiene	U		0.017	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Hexachlorocyclopentadiene	U		0.070	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Hexachloroethane	U		0.031	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Indeno(1,2,3-cd)pyrene	**1.0**		**0.010**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Isophorone	U		0.014	0.37	mg/Kg-dry-dry	1	11/20/2020 21:37
Naphthalene	U		0.0095	0.015	mg/Kg-dry-dry	1	11/20/2020 21:37
Nitrobenzene	U		0.025	0.37	mg/Kg-dry-dry	1	11/20/2020 21:37
N-Nitrosodi-n-propylamine	U		0.012	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
N-Nitrosodiphenylamine	U		0.042	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Pentachlorophenol	U		0.059	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Phenanthrene	**2.5**		**0.0069**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Phenol	U		0.037	0.073	mg/Kg-dry-dry	1	11/20/2020 21:37
Pyrene	**2.9**		**0.014**	**0.015**	**mg/Kg-dry-dry**	1	11/20/2020 21:37
Surr: 2,4,6-Tribromophenol	*78.2*			*38-92*	*%REC*	1	11/20/2020 21:37
Surr: 2-Fluorobiphenyl	*70.2*			*44-107*	*%REC*	1	11/20/2020 21:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-05-(1-3) Soil
Collection Date: 11/11/2020 05:18 PM

Work Order: 20111403
Lab ID: 20111403-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*79.2*			*37-109*	*%REC*	1	11/20/2020 21:37
Surr: 4-Terphenyl-d14	*76.7*			*52-123*	*%REC*	1	11/20/2020 21:37
Surr: Nitrobenzene-d5	*75.2*			*41-94*	*%REC*	1	11/20/2020 21:37
Surr: Phenol-d6	*89.5*			*28-111*	*%REC*	1	11/20/2020 21:37
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**		Prep: SW5035 / 11/18/20		Analyst: **MF**
Acetone	**0.47**		**0.14**	**0.16**	**mg/Kg-dry**	1	11/20/2020 23:23
Surr: 1,2-Dichloroethane-d4	*104*			*70-130*	*%REC*	1	11/20/2020 23:23
Surr: 4-Bromofluorobenzene	*105*			*70-130*	*%REC*	1	11/20/2020 23:23
Surr: Dibromofluoromethane	*99.7*			*70-130*	*%REC*	1	11/20/2020 23:23
Surr: Toluene-d8	*102*			*70-130*	*%REC*	1	11/20/2020 23:23
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00095	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,1,2,2-Tetrachloroethane	U		0.00077	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,1,2-Trichloroethane	U		0.00081	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,1,2-Trichlorotrifluoroethane	U		0.0013	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,1-Dichloroethane	U		0.00075	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,1-Dichloroethene	U		0.0012	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,2,4-Trichlorobenzene	U		0.0013	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,2-Dibromo-3-chloropropane	U		0.0012	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,2-Dibromoethane	U		0.00043	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,2-Dichlorobenzene	U		0.00084	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,2-Dichloroethane	U		0.00067	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,2-Dichloropropane	U		0.00053	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,3-Dichlorobenzene	U		0.00073	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
1,4-Dichlorobenzene	U		0.00077	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
2-Butanone	**0.032**		**0.0061**	**0.012**	**mg/Kg-dry-dry**	0.87	11/24/2020 14:43
2-Hexanone	U		0.0022	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
4-Methyl-2-pentanone	U		0.0022	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Benzene	U		0.00063	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Bromodichloromethane	U		0.00072	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Bromoform	U		0.00060	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Bromomethane	U		0.0030	0.012	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Carbon disulfide	**0.0029**	J	**0.00071**	**0.0060**	**mg/Kg-dry-dry**	0.87	11/24/2020 14:43
Carbon tetrachloride	U		0.0012	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Chlorobenzene	U		0.00076	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Chloroethane	U		0.0023	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Chloroform	U		0.00099	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Chloromethane	U		0.0012	0.012	mg/Kg-dry-dry	0.87	11/24/2020 14:43
cis-1,2-Dichloroethene	U		0.00065	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-05-(1-3) Soil
Collection Date: 11/11/2020 05:18 PM

Work Order: 20111403
Lab ID: 20111403-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,3-Dichloropropene	U		0.00072	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Cyclohexane	U		0.0020	0.012	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Dibromochloromethane	U		0.00061	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Dichlorodifluoromethane	U		0.0030	0.012	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Ethylbenzene	U		0.0010	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Isopropylbenzene	U		0.0010	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Methyl acetate	U		0.0014	0.012	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Methyl tert-butyl ether	U		0.00073	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Methylcyclohexane	U		0.0018	0.012	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Methylene chloride	U		0.0075	0.012	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Styrene	U		0.00090	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Tetrachloroethene	U		0.0011	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Toluene	U		0.0010	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
trans-1,2-Dichloroethene	U		0.00060	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
trans-1,3-Dichloropropene	U		0.00058	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Trichloroethene	U		0.00087	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Trichlorofluoromethane	U		0.00085	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Vinyl chloride	U		0.00084	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Xylenes, Total	U		0.0026	0.0060	mg/Kg-dry-dry	0.87	11/24/2020 14:43
Surr: 1,2-Dichloroethane-d4	*108*			*83-132*	*%REC*	0.87	11/24/2020 14:43
Surr: 4-Bromofluorobenzene	*102*			*83-111*	*%REC*	0.87	11/24/2020 14:43
Surr: Dibromofluoromethane	*104*			*77-125*	*%REC*	0.87	11/24/2020 14:43
Surr: Toluene-d8	*98.8*			*86-108*	*%REC*	0.87	11/24/2020 14:43
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**28**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-06-(9-11) Soil
Collection Date: 11/12/2020 08:30 AM

Work Order: 20111403
Lab ID: 20111403-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**		Prep: SW7471 / 11/18/20			Analyst: **MAC**
Mercury	**0.047**		**0.015**	**0.022**	**mg/Kg-dry**	1	11/18/2020 19:05
METALS BY ICP-MS		Method: **SW6020B**		Prep: SW3050B / 11/17/20			Analyst: **STP**
Arsenic	**8.6**		**0.055**	**0.46**	**mg/Kg-dry**	1	11/17/2020 21:21
Barium	**150**		**4.2**	**4.6**	**mg/Kg-dry**	10	11/18/2020 15:10
Cadmium	**0.16**	J	**0.027**	**0.18**	**mg/Kg-dry**	1	11/17/2020 21:21
Chromium	**13**		**0.20**	**0.46**	**mg/Kg-dry**	1	11/17/2020 21:21
Lead	**20**		**0.22**	**0.46**	**mg/Kg-dry**	1	11/17/2020 21:21
Selenium	**1.9**		**0.42**	**0.46**	**mg/Kg-dry**	1	11/17/2020 21:21
Silver	**0.090**	J	**0.060**	**0.46**	**mg/Kg-dry**	1	11/17/2020 21:21
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**		Prep: SW3546 / 11/18/20			Analyst: **EEW**
1,1`-Biphenyl	U		0.0068	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2,4,5-Trichlorophenol	U		0.025	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2,4,6-Trichlorophenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2,4-Dichlorophenol	U		0.022	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2,4-Dimethylphenol	U		0.021	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2,4-Dinitrophenol	U		0.31	0.84	mg/Kg-dry-dry	1	11/20/2020 22:01
2,4-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2,6-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2-Chloronaphthalene	U		0.0058	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
2-Chlorophenol	U		0.013	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2-Methylnaphthalene	U		0.0043	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
2-Methylphenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2-Nitroaniline	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
2-Nitrophenol	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
3&4-Methylphenol	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
3,3´-Dichlorobenzidine	U		0.020	0.21	mg/Kg-dry-dry	1	11/20/2020 22:01
3-Nitroaniline	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
4,6-Dinitro-2-methylphenol	U		0.035	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
4-Bromophenyl phenyl ether	U		0.023	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
4-Chloro-3-methylphenol	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
4-Chloroaniline	U		0.021	0.084	mg/Kg-dry-dry	1	11/20/2020 22:01
4-Chlorophenyl phenyl ether	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
4-Nitroaniline	U		0.065	0.21	mg/Kg-dry-dry	1	11/20/2020 22:01
4-Nitrophenol	U		0.098	0.21	mg/Kg-dry-dry	1	11/20/2020 22:01
Acenaphthene	U		0.0060	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Acenaphthylene	**0.011**		**0.0072**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 22:01
Acetophenone	U		0.0065	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-06-(9-11) Soil
Collection Date: 11/12/2020 08:30 AM

Work Order: 20111403
Lab ID: 20111403-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.0059	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Atrazine	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Benzaldehyde	U		0.064	0.084	mg/Kg-dry-dry	1	11/20/2020 22:01
Benzo(a)anthracene	U		0.0072	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Benzo(a)pyrene	U		0.0051	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Benzo(b)fluoranthene	U		0.0062	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Benzo(g,h,i)perylene	U		0.0064	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Benzo(k)fluoranthene	U		0.0063	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Bis(2-chloroethoxy)methane	U		0.026	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Bis(2-chloroethyl)ether	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Bis(2-chloroisopropyl)ether	U		0.0098	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Bis(2-ethylhexyl)phthalate	**0.51**		**0.035**	**0.041**	**mg/Kg-dry-dry**	1	11/20/2020 22:01
Butyl benzyl phthalate	U		0.052	0.084	mg/Kg-dry-dry	1	11/20/2020 22:01
Caprolactam	U		0.064	0.084	mg/Kg-dry-dry	1	11/20/2020 22:01
Carbazole	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Chrysene	U		0.0068	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Dibenzo(a,h)anthracene	U		0.0045	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Dibenzofuran	U		0.0061	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Diethyl phthalate	U		0.014	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Dimethyl phthalate	U		0.0082	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Di-n-butyl phthalate	U		0.026	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Di-n-octyl phthalate	U		0.036	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Fluoranthene	**0.11**		**0.0040**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 22:01
Fluorene	**0.079**		**0.0061**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 22:01
Hexachlorobenzene	U		0.012	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Hexachlorobutadiene	U		0.0098	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Hexachlorocyclopentadiene	U		0.040	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Hexachloroethane	U		0.017	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Indeno(1,2,3-cd)pyrene	U		0.0058	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Isophorone	U		0.0082	0.21	mg/Kg-dry-dry	1	11/20/2020 22:01
Naphthalene	U		0.0053	0.0084	mg/Kg-dry-dry	1	11/20/2020 22:01
Nitrobenzene	U		0.014	0.21	mg/Kg-dry-dry	1	11/20/2020 22:01
N-Nitrosodi-n-propylamine	U		0.0069	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
N-Nitrosodiphenylamine	U		0.024	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Pentachlorophenol	U		0.033	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Phenanthrene	**0.072**		**0.0039**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 22:01
Phenol	U		0.021	0.041	mg/Kg-dry-dry	1	11/20/2020 22:01
Pyrene	**0.12**		**0.0079**	**0.0084**	**mg/Kg-dry-dry**	1	11/20/2020 22:01
Surr: 2,4,6-Tribromophenol	*84.5*			*38-92*	*%REC*	1	11/20/2020 22:01
Surr: 2-Fluorobiphenyl	*76.4*			*44-107*	*%REC*	1	11/20/2020 22:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-06-(9-11) Soil
Collection Date: 11/12/2020 08:30 AM

Work Order: 20111403
Lab ID: 20111403-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*65.1*			*37-109*	*%REC*	1	11/20/2020 22:01
Surr: 4-Terphenyl-d14	*83.7*			*52-123*	*%REC*	1	11/20/2020 22:01
Surr: Nitrobenzene-d5	*47.4*			*41-94*	*%REC*	1	11/20/2020 22:01
Surr: Phenol-d6	*74.3*			*28-111*	*%REC*	1	11/20/2020 22:01
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00082	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,1,2,2-Tetrachloroethane	U		0.00066	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,1,2-Trichloroethane	U		0.00070	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,1,2-Trichlorotrifluoroethane	U		0.0011	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,1-Dichloroethane	U		0.00064	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,1-Dichloroethene	U		0.0010	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,2,4-Trichlorobenzene	U		0.0011	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,2-Dibromo-3-chloropropane	U		0.0010	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,2-Dibromoethane	U		0.00037	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,2-Dichlorobenzene	U		0.00073	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,2-Dichloroethane	U		0.00058	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,2-Dichloropropane	U		0.00046	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,3-Dichlorobenzene	U		0.00063	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
1,4-Dichlorobenzene	U		0.00066	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
2-Butanone	U		0.0053	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
2-Hexanone	U		0.0019	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
4-Methyl-2-pentanone	U		0.0019	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Acetone	**0.0082**	J	**0.0048**	**0.010**	**mg/Kg-dry-dry**	0.82	11/24/2020 15:33
Benzene	U		0.00054	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Bromodichloromethane	U		0.00062	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Bromoform	U		0.00052	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Bromomethane	U		0.0026	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Carbon disulfide	U		0.00061	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Carbon tetrachloride	U		0.0010	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Chlorobenzene	U		0.00065	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Chloroethane	U		0.0020	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Chloroform	U		0.00085	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Chloromethane	U		0.0010	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
cis-1,2-Dichloroethene	U		0.00056	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
cis-1,3-Dichloropropene	U		0.00062	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Cyclohexane	U		0.0018	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Dibromochloromethane	U		0.00053	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Dichlorodifluoromethane	U		0.0026	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Ethylbenzene	U		0.00090	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-06-(9-11) Soil
Collection Date: 11/12/2020 08:30 AM

Work Order: 20111403
Lab ID: 20111403-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00088	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Methyl acetate	U		0.0012	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Methyl tert-butyl ether	U		0.00063	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Methylcyclohexane	U		0.0015	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Methylene chloride	U		0.0064	0.010	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Styrene	U		0.00078	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Tetrachloroethene	U		0.00092	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Toluene	U		0.00089	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
trans-1,2-Dichloroethene	U		0.00052	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
trans-1,3-Dichloropropene	U		0.00050	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Trichloroethene	U		0.00075	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Trichlorofluoromethane	U		0.00074	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Vinyl chloride	U		0.00073	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Xylenes, Total	U		0.0023	0.0052	mg/Kg-dry-dry	0.82	11/24/2020 15:33
Surr: 1,2-Dichloroethane-d4	*106*			*83-132*	*%REC*	0.82	11/24/2020 15:33
Surr: 4-Bromofluorobenzene	*103*			*83-111*	*%REC*	0.82	11/24/2020 15:33
Surr: Dibromofluoromethane	*102*			*77-125*	*%REC*	0.82	11/24/2020 15:33
Surr: Toluene-d8	*97.8*			*86-108*	*%REC*	0.82	11/24/2020 15:33
MOISTURE			Method:**SW3550C**				Analyst: **KTP**
Moisture	**21**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-07-(0-1) Soil
Collection Date: 11/12/2020 09:25 AM

Work Order: 20111403
Lab ID: 20111403-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**		Prep: SW7471 / 11/18/20			Analyst: **MAC**
Mercury	U		0.014	0.021	mg/Kg-dry	1	11/18/2020 19:06
METALS BY ICP-MS		Method: **SW6020B**		Prep: SW3050B / 11/17/20			Analyst: **STP**
Arsenic	**5.0**		**0.058**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:23
Barium	**190**		**4.5**	**4.8**	**mg/Kg-dry**	10	11/18/2020 15:11
Cadmium	**0.23**		**0.029**	**0.19**	**mg/Kg-dry**	1	11/17/2020 21:23
Chromium	**13**		**0.21**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:23
Lead	**14**		**0.23**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:23
Selenium	**1.8**		**0.45**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:23
Silver	U		0.064	0.48	mg/Kg-dry	1	11/17/2020 21:23
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**		Prep: SW3546 / 11/18/20			Analyst: **EEW**
1,1`-Biphenyl	U		0.0063	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2,4,5-Trichlorophenol	U		0.023	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2,4,6-Trichlorophenol	U		0.010	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2,4-Dichlorophenol	U		0.021	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2,4-Dimethylphenol	U		0.020	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2,4-Dinitrophenol	U		0.28	0.77	mg/Kg-dry-dry	1	11/20/2020 22:25
2,4-Dinitrotoluene	U		0.025	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2,6-Dinitrotoluene	U		0.025	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2-Chloronaphthalene	U		0.0054	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
2-Chlorophenol	U		0.012	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2-Methylnaphthalene	U		0.0039	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
2-Methylphenol	U		0.010	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2-Nitroaniline	U		0.021	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
2-Nitrophenol	U		0.011	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
3&4-Methylphenol	U		0.021	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
3,3´-Dichlorobenzidine	U		0.018	0.19	mg/Kg-dry-dry	1	11/20/2020 22:25
3-Nitroaniline	U		0.022	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
4,6-Dinitro-2-methylphenol	U		0.032	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
4-Bromophenyl phenyl ether	U		0.021	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
4-Chloro-3-methylphenol	U		0.011	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
4-Chloroaniline	U		0.020	0.078	mg/Kg-dry-dry	1	11/20/2020 22:25
4-Chlorophenyl phenyl ether	U		0.011	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
4-Nitroaniline	U		0.060	0.19	mg/Kg-dry-dry	1	11/20/2020 22:25
4-Nitrophenol	U		0.091	0.19	mg/Kg-dry-dry	1	11/20/2020 22:25
Acenaphthene	U		0.0056	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
Acenaphthylene	U		0.0067	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
Acetophenone	U		0.0061	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-07-(0-1) Soil
Collection Date: 11/12/2020 09:25 AM

Work Order: 20111403
Lab ID: 20111403-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	**0.0077**		**0.0054**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Atrazine	U		0.023	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Benzaldehyde	U		0.059	0.078	mg/Kg-dry-dry	1	11/20/2020 22:25
Benzo(a)anthracene	**0.010**		**0.0067**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Benzo(a)pyrene	U		0.0047	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
Benzo(b)fluoranthene	**0.015**		**0.0058**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Benzo(g,h,i)perylene	U		0.0059	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
Benzo(k)fluoranthene	**0.0070**	J	**0.0059**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Bis(2-chloroethoxy)methane	U		0.024	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Bis(2-chloroethyl)ether	U		0.011	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Bis(2-chloroisopropyl)ether	U		0.0091	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Bis(2-ethylhexyl)phthalate	**0.045**		**0.032**	**0.038**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Butyl benzyl phthalate	U		0.048	0.078	mg/Kg-dry-dry	1	11/20/2020 22:25
Caprolactam	U		0.059	0.078	mg/Kg-dry-dry	1	11/20/2020 22:25
Carbazole	U		0.011	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Chrysene	**0.0077**		**0.0062**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Dibenzo(a,h)anthracene	U		0.0042	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
Dibenzofuran	U		0.0057	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Diethyl phthalate	U		0.013	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Dimethyl phthalate	U		0.0075	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Di-n-butyl phthalate	U		0.024	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Di-n-octyl phthalate	U		0.033	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Fluoranthene	**0.028**		**0.0037**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Fluorene	**0.0093**		**0.0056**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Hexachlorobenzene	U		0.011	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Hexachlorobutadiene	U		0.0091	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Hexachlorocyclopentadiene	U		0.037	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Hexachloroethane	U		0.016	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Indeno(1,2,3-cd)pyrene	U		0.0054	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
Isophorone	U		0.0075	0.19	mg/Kg-dry-dry	1	11/20/2020 22:25
Naphthalene	U		0.0049	0.0077	mg/Kg-dry-dry	1	11/20/2020 22:25
Nitrobenzene	U		0.013	0.19	mg/Kg-dry-dry	1	11/20/2020 22:25
N-Nitrosodi-n-propylamine	U		0.0064	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
N-Nitrosodiphenylamine	U		0.022	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Pentachlorophenol	U		0.031	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Phenanthrene	**0.026**		**0.0036**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Phenol	U		0.019	0.038	mg/Kg-dry-dry	1	11/20/2020 22:25
Pyrene	**0.015**		**0.0073**	**0.0077**	**mg/Kg-dry-dry**	1	11/20/2020 22:25
Surr: 2,4,6-Tribromophenol	*65.4*			*38-92*	*%REC*	1	11/20/2020 22:25
Surr: 2-Fluorobiphenyl	*73.9*			*44-107*	*%REC*	1	11/20/2020 22:25

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-07-(0-1) Soil
Collection Date: 11/12/2020 09:25 AM

Work Order: 20111403
Lab ID: 20111403-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*70.5*			*37-109*	*%REC*	1	11/20/2020 22:25
Surr: 4-Terphenyl-d14	*81.9*			*52-123*	*%REC*	1	11/20/2020 22:25
Surr: Nitrobenzene-d5	*75.3*			*41-94*	*%REC*	1	11/20/2020 22:25
Surr: Phenol-d6	*79.8*			*28-111*	*%REC*	1	11/20/2020 22:25
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00078	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,1,2,2-Tetrachloroethane	U		0.00063	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,1,2-Trichloroethane	U		0.00066	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,1,2-Trichlorotrifluoroethane	U		0.0011	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,1-Dichloroethane	U		0.00061	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,1-Dichloroethene	U		0.00097	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,2,4-Trichlorobenzene	U		0.0011	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,2-Dibromo-3-chloropropane	U		0.00098	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,2-Dibromoethane	U		0.00036	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,2-Dichlorobenzene	U		0.00069	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,2-Dichloroethane	U		0.00056	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,2-Dichloropropane	U		0.00044	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,3-Dichlorobenzene	U		0.00060	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
1,4-Dichlorobenzene	U		0.00063	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
2-Butanone	U		0.0051	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
2-Hexanone	U		0.0018	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
4-Methyl-2-pentanone	U		0.0018	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Acetone	**0.053**		**0.0046**	**0.0099**	**mg/Kg-dry-dry**	0.813	11/24/2020 13:11
Benzene	U		0.00052	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Bromodichloromethane	U		0.00059	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Bromoform	U		0.00050	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Bromomethane	U		0.0025	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Carbon disulfide	**0.0039**	J	**0.00058**	**0.0050**	**mg/Kg-dry-dry**	0.813	11/24/2020 13:11
Carbon tetrachloride	U		0.00099	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Chlorobenzene	U		0.00062	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Chloroethane	U		0.0019	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Chloroform	U		0.00081	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Chloromethane	U		0.00099	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
cis-1,2-Dichloroethene	U		0.00054	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
cis-1,3-Dichloropropene	U		0.00059	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Cyclohexane	U		0.0017	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Dibromochloromethane	U		0.00051	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Dichlorodifluoromethane	U		0.0025	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Ethylbenzene	U		0.00086	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-07-(0-1) Soil
Collection Date: 11/12/2020 09:25 AM

Work Order: 20111403
Lab ID: 20111403-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00084	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Methyl acetate	U		0.0012	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Methyl tert-butyl ether	U		0.00060	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Methylcyclohexane	U		0.0015	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Methylene chloride	U		0.0061	0.0099	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Styrene	U		0.00074	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Tetrachloroethene	U		0.00088	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Toluene	U		0.00085	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
trans-1,2-Dichloroethene	U		0.00050	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
trans-1,3-Dichloropropene	U		0.00048	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Trichloroethene	U		0.00071	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Trichlorofluoromethane	U		0.00070	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Vinyl chloride	U		0.00069	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Xylenes, Total	U		0.0022	0.0050	mg/Kg-dry-dry	0.813	11/24/2020 13:11
Surr: 1,2-Dichloroethane-d4	*110*			*83-132*	*%REC*	0.813	11/24/2020 13:11
Surr: 4-Bromofluorobenzene	*103*			*83-111*	*%REC*	0.813	11/24/2020 13:11
Surr: Dibromofluoromethane	*105*			*77-125*	*%REC*	0.813	11/24/2020 13:11
Surr: Toluene-d8	*101*			*86-108*	*%REC*	0.813	11/24/2020 13:11
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**18**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-08-(3-5) Soil
Collection Date: 11/11/2020 11:17 AM

Work Order: 20111403
Lab ID: 20111403-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 11/18/20		Analyst: **MAC**
Mercury	**0.030**		**0.014**	**0.020**	**mg/Kg-dry**	1	11/18/2020 19:08
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 11/17/20		Analyst: **STP**
Arsenic	**6.3**		**0.058**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:25
Barium	**190**		**4.5**	**4.8**	**mg/Kg-dry**	10	11/18/2020 15:13
Cadmium	**0.085**	J	**0.029**	**0.19**	**mg/Kg-dry**	1	11/17/2020 21:25
Chromium	**13**		**0.21**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:25
Lead	**12**		**0.23**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:25
Selenium	**1.9**		**0.45**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:25
Silver	**0.079**	J	**0.064**	**0.48**	**mg/Kg-dry**	1	11/17/2020 21:25
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 11/18/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.0066	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2,4,5-Trichlorophenol	U		0.024	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2,4,6-Trichlorophenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2,4-Dichlorophenol	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2,4-Dimethylphenol	U		0.021	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2,4-Dinitrophenol	U		0.30	0.81	mg/Kg-dry-dry	1	11/20/2020 22:49
2,4-Dinitrotoluene	U		0.026	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2,6-Dinitrotoluene	U		0.027	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2-Chloronaphthalene	U		0.0057	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
2-Chlorophenol	U		0.013	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2-Methylnaphthalene	U		0.0041	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
2-Methylphenol	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2-Nitroaniline	U		0.023	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
2-Nitrophenol	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
3&4-Methylphenol	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
3,3´-Dichlorobenzidine	U		0.019	0.20	mg/Kg-dry-dry	1	11/20/2020 22:49
3-Nitroaniline	U		0.024	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
4,6-Dinitro-2-methylphenol	U		0.034	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
4-Bromophenyl phenyl ether	U		0.022	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
4-Chloro-3-methylphenol	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
4-Chloroaniline	U		0.021	0.081	mg/Kg-dry-dry	1	11/20/2020 22:49
4-Chlorophenyl phenyl ether	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
4-Nitroaniline	U		0.063	0.20	mg/Kg-dry-dry	1	11/20/2020 22:49
4-Nitrophenol	U		0.095	0.20	mg/Kg-dry-dry	1	11/20/2020 22:49
Acenaphthene	U		0.0059	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Acenaphthylene	U		0.0070	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Acetophenone	U		0.0063	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-08-(3-5) Soil
Collection Date: 11/11/2020 11:17 AM

Work Order: 20111403
Lab ID: 20111403-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.0057	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Atrazine	U		0.024	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Benzaldehyde	U		0.062	0.081	mg/Kg-dry-dry	1	11/20/2020 22:49
Benzo(a)anthracene	U		0.0070	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Benzo(a)pyrene	U		0.0050	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Benzo(b)fluoranthene	U		0.0060	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Benzo(g,h,i)perylene	U		0.0062	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Benzo(k)fluoranthene	U		0.0061	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Bis(2-chloroethoxy)methane	U		0.026	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Bis(2-chloroethyl)ether	U		0.011	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Bis(2-chloroisopropyl)ether	U		0.0095	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Bis(2-ethylhexyl)phthalate	U		0.034	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Butyl benzyl phthalate	U		0.051	0.081	mg/Kg-dry-dry	1	11/20/2020 22:49
Caprolactam	U		0.062	0.081	mg/Kg-dry-dry	1	11/20/2020 22:49
Carbazole	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Chrysene	U		0.0066	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Dibenzo(a,h)anthracene	U		0.0044	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Dibenzofuran	U		0.0060	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Diethyl phthalate	U		0.014	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Dimethyl phthalate	U		0.0079	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Di-n-butyl phthalate	U		0.025	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Di-n-octyl phthalate	U		0.035	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Fluoranthene	U		0.0039	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Fluorene	U		0.0059	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Hexachlorobenzene	U		0.012	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Hexachlorobutadiene	U		0.0095	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Hexachlorocyclopentadiene	U		0.038	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Hexachloroethane	U		0.017	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Indeno(1,2,3-cd)pyrene	U		0.0056	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Isophorone	U		0.0079	0.20	mg/Kg-dry-dry	1	11/20/2020 22:49
Naphthalene	U		0.0052	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Nitrobenzene	U		0.014	0.20	mg/Kg-dry-dry	1	11/20/2020 22:49
N-Nitrosodi-n-propylamine	U		0.0067	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
N-Nitrosodiphenylamine	U		0.023	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Pentachlorophenol	U		0.032	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Phenanthrene	U		0.0038	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Phenol	U		0.020	0.040	mg/Kg-dry-dry	1	11/20/2020 22:49
Pyrene	U		0.0077	0.0081	mg/Kg-dry-dry	1	11/20/2020 22:49
Surr: 2,4,6-Tribromophenol	*49.2*			*38-92*	*%REC*	1	11/20/2020 22:49
Surr: 2-Fluorobiphenyl	*56.8*			*44-107*	*%REC*	1	11/20/2020 22:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-08-(3-5) Soil
Collection Date: 11/11/2020 11:17 AM

Work Order: 20111403
Lab ID: 20111403-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*68.2*			*37-109*	*%REC*	1	11/20/2020 22:49
Surr: 4-Terphenyl-d14	*57.8*			*52-123*	*%REC*	1	11/20/2020 22:49
Surr: Nitrobenzene-d5	*66.0*			*41-94*	*%REC*	1	11/20/2020 22:49
Surr: Phenol-d6	*74.4*			*28-111*	*%REC*	1	11/20/2020 22:49
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00067	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,1,2,2-Tetrachloroethane	U		0.00054	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,1,2-Trichloroethane	U		0.00057	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,1,2-Trichlorotrifluoroethane	U		0.00093	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,1-Dichloroethane	U		0.00052	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,1-Dichloroethene	U		0.00083	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,2,4-Trichlorobenzene	U		0.00093	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,2-Dibromo-3-chloropropane	U		0.00084	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,2-Dibromoethane	U		0.00030	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,2-Dichlorobenzene	U		0.00059	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,2-Dichloroethane	U		0.00047	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,2-Dichloropropane	U		0.00037	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,3-Dichlorobenzene	U		0.00052	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
1,4-Dichlorobenzene	U		0.00054	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
2-Butanone	U		0.0043	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
2-Hexanone	U		0.0015	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
4-Methyl-2-pentanone	U		0.0015	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Acetone	U		0.0039	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Benzene	U		0.00044	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Bromodichloromethane	U		0.00051	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Bromoform	U		0.00042	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Bromomethane	U		0.0021	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Carbon disulfide	U		0.00050	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Carbon tetrachloride	U		0.00085	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Chlorobenzene	U		0.00053	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Chloroethane	U		0.0016	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Chloroform	U		0.00069	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Chloromethane	U		0.00085	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
cis-1,2-Dichloroethene	U		0.00046	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
cis-1,3-Dichloropropene	U		0.00051	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Cyclohexane	U		0.0014	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Dibromochloromethane	U		0.00043	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Dichlorodifluoromethane	U		0.0021	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Ethylbenzene	U		0.00074	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-08-(3-5) Soil
Collection Date: 11/11/2020 11:17 AM

Work Order: 20111403
Lab ID: 20111403-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00072	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Methyl acetate	U		0.0010	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Methyl tert-butyl ether	U		0.00052	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Methylcyclohexane	U		0.0013	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Methylene chloride	U		0.0052	0.0085	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Styrene	U		0.00063	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Tetrachloroethene	U		0.00075	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Toluene	U		0.00073	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
trans-1,2-Dichloroethene	U		0.00042	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
trans-1,3-Dichloropropene	U		0.00041	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Trichloroethene	U		0.00061	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Trichlorofluoromethane	U		0.00060	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Vinyl chloride	U		0.00059	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Xylenes, Total	U		0.0019	0.0042	mg/Kg-dry-dry	0.693	11/24/2020 15:00
Surr: 1,2-Dichloroethane-d4	*102*			*83-132*	*%REC*	0.693	11/24/2020 15:00
Surr: 4-Bromofluorobenzene	*108*			*83-111*	*%REC*	0.693	11/24/2020 15:00
Surr: Dibromofluoromethane	*102*			*77-125*	*%REC*	0.693	11/24/2020 15:00
Surr: Toluene-d8	*101*			*86-108*	*%REC*	0.693	11/24/2020 15:00
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**18**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-09-(13-15) Soil
Collection Date: 11/11/2020 12:10 PM

Work Order: 20111403
Lab ID: 20111403-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 11/18/20		Analyst: **MAC**
Mercury	**0.039**		**0.016**	**0.023**	**mg/Kg-dry**	1	11/18/2020 19:10
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 11/17/20		Analyst: **STP**
Arsenic	**2.3**		**0.050**	**0.42**	**mg/Kg-dry**	1	11/17/2020 21:27
Barium	**140**		**0.38**	**0.42**	**mg/Kg-dry**	1	11/17/2020 21:27
Cadmium	**0.10**	J	**0.025**	**0.17**	**mg/Kg-dry**	1	11/17/2020 21:27
Chromium	**11**		**0.18**	**0.42**	**mg/Kg-dry**	1	11/17/2020 21:27
Lead	**11**		**0.20**	**0.42**	**mg/Kg-dry**	1	11/17/2020 21:27
Selenium	**1.8**		**0.38**	**0.42**	**mg/Kg-dry**	1	11/17/2020 21:27
Silver	**0.083**	J	**0.055**	**0.42**	**mg/Kg-dry**	1	11/17/2020 21:27
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 11/20/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.0068	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2,4,5-Trichlorophenol	U		0.025	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2,4,6-Trichlorophenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2,4-Dichlorophenol	U		0.022	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2,4-Dimethylphenol	U		0.021	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2,4-Dinitrophenol	U		0.30	0.83	mg/Kg-dry-dry	1	11/24/2020 03:40
2,4-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2,6-Dinitrotoluene	U		0.027	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2-Chloronaphthalene	U		0.0058	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
2-Chlorophenol	U		0.013	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2-Methylnaphthalene	U		0.0042	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
2-Methylphenol	U		0.011	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2-Nitroaniline	U		0.023	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
2-Nitrophenol	U		0.012	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
3&4-Methylphenol	U		0.023	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
3,3´-Dichlorobenzidine	U		0.019	0.21	mg/Kg-dry-dry	1	11/24/2020 03:40
3-Nitroaniline	U		0.024	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
4,6-Dinitro-2-methylphenol	U		0.035	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
4-Bromophenyl phenyl ether	U		0.023	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
4-Chloro-3-methylphenol	U		0.012	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
4-Chloroaniline	U		0.021	0.084	mg/Kg-dry-dry	1	11/24/2020 03:40
4-Chlorophenyl phenyl ether	U		0.012	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
4-Nitroaniline	U		0.065	0.21	mg/Kg-dry-dry	1	11/24/2020 03:40
4-Nitrophenol	U		0.098	0.21	mg/Kg-dry-dry	1	11/24/2020 03:40
Acenaphthene	U		0.0060	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Acenaphthylene	U		0.0072	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Acetophenone	U		0.0065	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-09-(13-15) Soil
Collection Date: 11/11/2020 12:10 PM

Work Order: 20111403
Lab ID: 20111403-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.0059	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Atrazine	U		0.024	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Benzaldehyde	U		0.064	0.084	mg/Kg-dry-dry	1	11/24/2020 03:40
Benzo(a)anthracene	U		0.0072	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Benzo(a)pyrene	U		0.0051	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Benzo(b)fluoranthene	U		0.0062	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Benzo(g,h,i)perylene	U		0.0064	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Benzo(k)fluoranthene	U		0.0063	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Bis(2-chloroethoxy)methane	U		0.026	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Bis(2-chloroethyl)ether	U		0.012	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Bis(2-chloroisopropyl)ether	U		0.0098	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Bis(2-ethylhexyl)phthalate	U		0.034	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Butyl benzyl phthalate	U		0.052	0.084	mg/Kg-dry-dry	1	11/24/2020 03:40
Caprolactam	U		0.064	0.084	mg/Kg-dry-dry	1	11/24/2020 03:40
Carbazole	U		0.012	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Chrysene	U		0.0067	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Dibenzo(a,h)anthracene	U		0.0045	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Dibenzofuran	U		0.0061	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Diethyl phthalate	U		0.014	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Dimethyl phthalate	U		0.0081	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Di-n-butyl phthalate	U		0.026	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Di-n-octyl phthalate	U		0.036	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Fluoranthene	U		0.0040	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Fluorene	U		0.0060	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Hexachlorobenzene	U		0.012	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Hexachlorobutadiene	U		0.0098	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Hexachlorocyclopentadiene	U		0.039	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Hexachloroethane	U		0.017	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Indeno(1,2,3-cd)pyrene	U		0.0058	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Isophorone	U		0.0081	0.21	mg/Kg-dry-dry	1	11/24/2020 03:40
Naphthalene	U		0.0053	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Nitrobenzene	U		0.014	0.21	mg/Kg-dry-dry	1	11/24/2020 03:40
N-Nitrosodi-n-propylamine	U		0.0069	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
N-Nitrosodiphenylamine	U		0.024	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Pentachlorophenol	U		0.033	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Phenanthrene	U		0.0039	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Phenol	U		0.021	0.041	mg/Kg-dry-dry	1	11/24/2020 03:40
Pyrene	U		0.0079	0.0083	mg/Kg-dry-dry	1	11/24/2020 03:40
Surr: 2,4,6-Tribromophenol	*41.9*			*38-92*	*%REC*	1	11/24/2020 03:40
Surr: 2-Fluorobiphenyl	*56.8*			*44-107*	*%REC*	1	11/24/2020 03:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-09-(13-15) Soil
Collection Date: 11/11/2020 12:10 PM

Work Order: 20111403
Lab ID: 20111403-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*63.1*			*37-109*	*%REC*	1	11/24/2020 03:40
Surr: 4-Terphenyl-d14	*43.2*	S		*52-123*	*%REC*	1	11/24/2020 03:40
Surr: Nitrobenzene-d5	*58.1*			*41-94*	*%REC*	1	11/24/2020 03:40
Surr: Phenol-d6	*65.1*			*28-111*	*%REC*	1	11/24/2020 03:40
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00074	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,1,2,2-Tetrachloroethane	U		0.00060	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,1,2-Trichloroethane	U		0.00063	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,1,2-Trichlorotrifluoroethane	U		0.0010	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,1-Dichloroethane	U		0.00058	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,1-Dichloroethene	U		0.00092	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,2,4-Trichlorobenzene	U		0.0010	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,2-Dibromo-3-chloropropane	U		0.00092	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,2-Dibromoethane	U		0.00034	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,2-Dichlorobenzene	U		0.00065	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,2-Dichloroethane	U		0.00052	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,2-Dichloropropane	U		0.00041	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,3-Dichlorobenzene	U		0.00057	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
1,4-Dichlorobenzene	U		0.00060	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
2-Butanone	U		0.0048	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
2-Hexanone	U		0.0017	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
4-Methyl-2-pentanone	U		0.0017	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Acetone	U		0.0043	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Benzene	U		0.00049	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Bromodichloromethane	U		0.00056	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Bromoform	U		0.00047	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Bromomethane	U		0.0023	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Carbon disulfide	U		0.00055	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Carbon tetrachloride	U		0.00093	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Chlorobenzene	U		0.00059	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Chloroethane	U		0.0018	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Chloroform	U		0.00077	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Chloromethane	U		0.00093	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
cis-1,2-Dichloroethene	U		0.00050	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
cis-1,3-Dichloropropene	U		0.00056	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Cyclohexane	U		0.0016	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Dibromochloromethane	U		0.00048	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Dichlorodifluoromethane	U		0.0023	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Ethylbenzene	U		0.00081	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: 2020-BH-09-(13-15) Soil
Collection Date: 11/11/2020 12:10 PM

Work Order: 20111403
Lab ID: 20111403-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00079	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Methyl acetate	U		0.0011	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Methyl tert-butyl ether	U		0.00057	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Methylcyclohexane	U		0.0014	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Methylene chloride	U		0.0058	0.0093	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Styrene	U		0.00070	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Tetrachloroethene	U		0.00083	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Toluene	U		0.00080	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
trans-1,2-Dichloroethene	U		0.00047	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
trans-1,3-Dichloropropene	U		0.00045	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Trichloroethene	U		0.00067	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Trichlorofluoromethane	U		0.00066	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Vinyl chloride	U		0.00065	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Xylenes, Total	U		0.0021	0.0047	mg/Kg-dry-dry	0.731	11/24/2020 15:16
Surr: 1,2-Dichloroethane-d4	*109*			*83-132*	*%REC*	0.731	11/24/2020 15:16
Surr: 4-Bromofluorobenzene	*104*			*83-111*	*%REC*	0.731	11/24/2020 15:16
Surr: Dibromofluoromethane	*106*			*77-125*	*%REC*	0.731	11/24/2020 15:16
Surr: Toluene-d8	*99.7*			*86-108*	*%REC*	0.731	11/24/2020 15:16
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**22**		**0.10**	**0.10**	**% of sample**	1	11/18/2020 14:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: Trip Blank
Collection Date: 11/11/2020

Work Order: 20111403
Lab ID: 20111403-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL	Method: **SW8260C**						Analyst: **MF**
1,1,1-Trichloroethane	U		0.00079	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,1,2,2-Tetrachloroethane	U		0.00064	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,1,2-Trichloroethane	U		0.00067	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,1,2-Trichlorotrifluoroethane	U		0.0011	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,1-Dichloroethane	U		0.00062	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,1-Dichloroethene	U		0.00098	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,2,4-Trichlorobenzene	U		0.0011	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,2-Dibromo-3-chloropropane	U		0.00099	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,2-Dibromoethane	U		0.00036	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,2-Dichlorobenzene	U		0.00070	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,2-Dichloroethane	U		0.00056	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,2-Dichloropropane	U		0.00044	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,3-Dichlorobenzene	U		0.00061	0.0050	mg/Kg-dry	1	11/24/2020 13:28
1,4-Dichlorobenzene	U		0.00064	0.0050	mg/Kg-dry	1	11/24/2020 13:28
2-Butanone	U		0.0051	0.010	mg/Kg-dry	1	11/24/2020 13:28
2-Hexanone	U		0.0018	0.0050	mg/Kg-dry	1	11/24/2020 13:28
4-Methyl-2-pentanone	U		0.0018	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Acetone	U		0.0046	0.010	mg/Kg-dry	1	11/24/2020 13:28
Benzene	U		0.00052	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Bromodichloromethane	U		0.00060	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Bromoform	U		0.00050	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Bromomethane	U		0.0025	0.010	mg/Kg-dry	1	11/24/2020 13:28
Carbon disulfide	U		0.00059	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Carbon tetrachloride	U		0.0010	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Chlorobenzene	U		0.00063	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Chloroethane	U		0.0019	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Chloroform	U		0.00082	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Chloromethane	U		0.0010	0.010	mg/Kg-dry	1	11/24/2020 13:28
cis-1,2-Dichloroethene	U		0.00054	0.0050	mg/Kg-dry	1	11/24/2020 13:28
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Cyclohexane	U		0.0017	0.010	mg/Kg-dry	1	11/24/2020 13:28
Dibromochloromethane	U		0.00051	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Dichlorodifluoromethane	U		0.0025	0.010	mg/Kg-dry	1	11/24/2020 13:28
Ethylbenzene	U		0.00087	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Isopropylbenzene	U		0.00085	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Methyl acetate	U		0.0012	0.010	mg/Kg-dry	1	11/24/2020 13:28
Methyl tert-butyl ether	U		0.00061	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Methylcyclohexane	U		0.0015	0.010	mg/Kg-dry	1	11/24/2020 13:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Dec-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
Sample ID: Trip Blank
Collection Date: 11/11/2020

Work Order: 20111403
Lab ID: 20111403-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.0062	0.010	mg/Kg-dry	1	11/24/2020 13:28
Styrene	U		0.00075	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Tetrachloroethene	U		0.00089	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Toluene	U		0.00086	0.0050	mg/Kg-dry	1	11/24/2020 13:28
trans-1,2-Dichloroethene	U		0.00050	0.0050	mg/Kg-dry	1	11/24/2020 13:28
trans-1,3-Dichloropropene	U		0.00048	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Trichloroethene	U		0.00072	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Trichlorofluoromethane	U		0.00071	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Vinyl chloride	U		0.00070	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Xylenes, Total	U		0.0022	0.0050	mg/Kg-dry	1	11/24/2020 13:28
Surr: 1,2-Dichloroethane-d4	*104*			*83-132*	*%REC*	1	11/24/2020 13:28
Surr: 4-Bromofluorobenzene	*100*			*83-111*	*%REC*	1	11/24/2020 13:28
Surr: Dibromofluoromethane	*104*			*77-125*	*%REC*	1	11/24/2020 13:28
Surr: Toluene-d8	*97.2*			*86-108*	*%REC*	1	11/24/2020 13:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

Batch 167860 The MS/MSD data for metals is not related to this project's sample. No data requires qualification.

Batch 167928 Sample 20111403-01B SVO_8270_S One or more surrogate recoveries were below the lower control limits. The sample results may be biased low, 4-Terphenyl-d14 Client Sample ID: 2020-BH-01-(5-7) Soil

Batch 167928 Sample 20111403-03B SVO_8270_S One or more surrogate recoveries were below the lower control limits. The sample results may be biased low, 4-Terphenyl-d14 Client Sample ID: 2020-BH-03-(1-3) Soil

Batch 167928 Sample 20111403-05B SVO_8270_S Prep comment: Reduced mass due to sample wetness. Client Sample ID: 2020-BH-05-(1-3) Soil

Batch 167928 Sample SLCSS1-167928 SVO_8270_S The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: 2,4-Dimethylphenol

Batch 167928 The MS/MSD data for semivolatiles is not related to this project's sample. No data requires qualification.

Batch 167952 Sample 20111403-02A VOC_8260_S The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-02-(0-1) Soil

Batch 167952 Sample 20111403-02A VOC_8260_S The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-02-(0-1) Soil

Batch 167952 Sample 20111403-05A VOC_8260_S The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-05-(1-3) Soil

Batch 167952 Sample 20111403-05A VOC_8260_S The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-

05-(1-3) Soil

Batch 167952 Sample 20111403-09A MS VOC_8260_S The MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene Client Sample ID: 2202-BH-09-(13-15) Soil

Batch 167952 Sample 20111403-09A MS VOC_8260_S The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: chloroethane, ethylacetate, t-butanol, vinyl chloride Client Sample ID: 2202-BH-09-(13-15) Soil

Batch 167952 Sample 20111403-09A MS/MSD VOC_8260_S The MS/MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: acetone Client Sample ID: 2202-BH-09-(13-15) Soil

Batch 167952 Sample 20111403-09A MSD VOC_8260_S The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary. tetrachloroethene, ethylbenzene, 4-chlorotoluene, m,p-xylene, total xylene Client Sample ID: 2202-BH-09-(13-15) Soil

Batch 167952 Sample 20111403-09A MSD VOC_8260_S The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: chloroethane, ethylacetate, t-butanol, vinyl chloride Client Sample ID:

Batch 167952 Sample 20111403-09A MSD VOC_8260_S The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: methylene chloride Client Sample ID: 2202-BH-09-(13-15) Soil

Batch 167952x Sample 20111403-01A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-01-(5-7) Soil

Batch 167952x Sample 20111403-01A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-01-(5-7) Soil

Batch 167952x Sample 20111403-03A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client

Sample ID: 2020-BH-03-(1-3) Soil

Batch 167952x Sample 20111403-03A VOC_8260_SLL The Continuing Calibration Verification
exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-03-(1-3) Soil

Batch 167952x Sample 20111403-04A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-04-(9-11) Soil

Batch 167952x Sample 20111403-04A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-04-(9-11) Soil

Batch 167952x Sample 20111403-06A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-06-(9-11) Soil

Batch 167952x Sample 20111403-06A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-06-(9-11) Soil

Batch 167952x Sample 20111403-07A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-07-(0-1) Soil

Batch 167952x Sample 20111403-07A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-07-(0-1) Soil

Batch 167952x Sample 20111403-08A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-08-(3-5) Soil

Batch 167952x Sample 20111403-08A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-08-(3-5) Soil

Batch 167952x Sample 20111403-09A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: 2020-BH-09-(13-15) Soil

Batch 167952x Sample 20111403-09A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: 2020-BH-09-(13-15) Soil

Batch 167952x Sample 20111403-10A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: dichlorodifluoromethane, chloromethane, methyl iodide Client Sample ID: Trip Blank

Batch 167952x Sample 20111403-10A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, vinyl acetate Client Sample ID: Trip Blank

Batch 168076 Sample 20111403-09B SVO_8270_S One or more surrogate recoveries were below the lower control limits. The sample results may be biased low, 4-Terphenyl-d14 Client Sample ID: 2020-BH-09-(13-15) Soil

Batch 168076 Sample 20111403-09B SVO_8270_S The Continuing Calibration Verification exceeded
acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: 4-Nitroanaline Client Sample ID: 2020-BH-09-(13-15) Soil

Batch 168076 The MS/MSD data for semivolatiles is not related to this project's sample. No data requires qualification.

Batch 168427 The MS/MSD data for mercury is not related to this project's sample. No data requires qualification.

Batch R304384 Sample 20111403-01A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to

be considered estimate: 2-hexanone Client Sample ID: 2020-BH-01-(5-7) Soil

Batch R304384 Sample 20111403-01A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-01-(5-7) Soil

Batch R304384 Sample 20111403-03A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: 2020-BH-03-(1-3) Soil

Batch R304384 Sample 20111403-03A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-03-(1-3) Soil

Batch R304384 Sample 20111403-04A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: 2020-BH-04-(9-11) Soil

Batch R304384 Sample 20111403-04A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-04-(9-11) Soil

Batch R304384 Sample 20111403-05A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: 2020-BH-05-(1-3) Soil

Batch R304384 Sample 20111403-05A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-05-(1-3) Soil

Batch R304384 Sample 20111403-06A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: 2020-BH-06-(9-11) Soil

Batch R304384 Sample 20111403-06A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-06-(9-11) Soil

Batch R304384 Sample 20111403-07A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: 2020-BH-07-(0-1) Soil

Batch R304384 Sample 20111403-07A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-07-(0-1) Soil

Batch R304384 Sample 20111403-07A MS VOC_8260_SLL The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: 2-butanone Client Sample ID: 2020-BH-07(0-1)Soil

Batch R304384 Sample 20111403-07A MS VOC_8260_SLL The MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: 2-hexanone Client Sample ID: 2020-BH-07(0-1)Soil

Batch R304384 Sample 20111403-07A MS VOC_8260_SLL The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: naphthalene Client Sample ID: 2020-BH-07(0-1)Soil

Batch R304384 Sample 20111403-07A MS VOC_8260_SLL The MS recovery was outside of the control limit. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: see QC report

Batch R304384 Sample 20111403-07A MSD VOC_8260_SLL The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: 2-butanone Client Sample ID: 2020-BH-07(0-1)Soil

Batch R304384 Sample 20111403-07A MSD VOC_8260_SLL The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary. 2-hexanone Client Sample ID: 2020-BH-07(0-1)Soil

Batch R304384 Sample 20111403-07A MSD VOC_8260_SLL The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: naphthalene Client Sample ID: 2020-BH-07(0-1)Soil

Batch R304384 Sample 20111403-07A MSD VOC_8260_SLL The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: methyl iodide, trichlorofluoromethane, bromomethane, 1,1-dichloroethene, dichlorodifluoromethane Client Sample ID: 2020-BH-

07(0-1)Soil

Batch R304384 Sample 20111403-08A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: 2020-BH-08-(3-5) Soil

Batch R304384 Sample 20111403-08A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-08-(3-5) Soil

Batch R304384 Sample 20111403-09A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: 2020-BH-09-(13-15) Soil

Batch R304384 Sample 20111403-09A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: 2020-BH-09-(13-15) Soil

Batch R304384 Sample 20111403-10A VOC_8260_SLL The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 2-hexanone Client Sample ID: Trip Blank

Batch R304384 Sample 20111403-10A VOC_8260_SLL The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane Client Sample ID: Trip Blank

Batch R304384 Sample VLCSS1-201124 VOC_8260_SLL The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: methyl iodide

ALS Group, USA

Date: 01-Dec-20

Client: Golder Associates Inc.

QC BATCH REPORT

Work Order: 20111403

Project: Golder (Phase II Eaton Shenandoah 20394143)

Batch ID: **167847** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-167847-167847** Units: **mg/Kg** Analysis Date: **11/17/2020 03:43 PM**

Client ID: Run ID: **HG4_201117A** SeqNo: **6906963** Prep Date: **11/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-167847-167847** Units: **mg/Kg** Analysis Date: **11/17/2020 03:45 PM**

Client ID: Run ID: **HG4_201117A** SeqNo: **6906964** Prep Date: **11/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.18	0.020	0.1665	0	108	80-120	0			

MS Sample ID: **20111276-08BMS** Units: **mg/Kg** Analysis Date: **11/17/2020 03:56 PM**

Client ID: Run ID: **HG4_201117A** SeqNo: **6906968** Prep Date: **11/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1678	0.017	0.1386	0.02456	103	75-125	0			

MSD Sample ID: **20111276-08BMSD** Units: **mg/Kg** Analysis Date: **11/17/2020 04:03 PM**

Client ID: Run ID: **HG4_201117A** SeqNo: **6906972** Prep Date: **11/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1635	0.016	0.1345	0.02456	103	75-125	0.1678	2.59	35	

The following samples were analyzed in this batch: 20111403-02B 20111403-03B 20111403-04B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167914** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-167914-167914** Units: **mg/Kg** Analysis Date: **11/18/2020 06:49 PM**
Client ID: Run ID: **HG4_201118A** SeqNo: **6912055** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-167914-167914** Units: **mg/Kg** Analysis Date: **11/18/2020 06:50 PM**
Client ID: Run ID: **HG4_201118A** SeqNo: **6912056** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1608	0.020	0.1665	0	96.6	80-120	0			

MS Sample ID: **20111414-12AMS** Units: **mg/Kg** Analysis Date: **11/18/2020 07:44 PM**
Client ID: Run ID: **HG4_201118A** SeqNo: **6912086** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1575	0.018	0.1521	0.008462	98	75-125	0			

MSD Sample ID: **20111414-12AMSD** Units: **mg/Kg** Analysis Date: **11/18/2020 07:45 PM**
Client ID: Run ID: **HG4_201118A** SeqNo: **6912087** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1605	0.019	0.1542	0.008462	98.6	75-125	0.1575	1.86	35	

The following samples were analyzed in this batch:

20111403-05B	20111403-06B	20111403-07B
20111403-08B	20111403-09B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **168427** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-168427-168427** Units: **mg/Kg** Analysis Date: **12/1/2020 08:20 AM**
Client ID: Run ID: **HG4_201201A** SeqNo: **6944415** Prep Date: **11/30/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-168427-168427** Units: **mg/Kg** Analysis Date: **12/1/2020 08:22 AM**
Client ID: Run ID: **HG4_201201A** SeqNo: **6944416** Prep Date: **11/30/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1692	0.020	0.1665	0	102	80-120	0			

MS Sample ID: **20111726-41AMS** Units: **mg/Kg** Analysis Date: **12/1/2020 09:18 AM**
Client ID: Run ID: **HG4_201201A** SeqNo: **6944446** Prep Date: **11/30/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.06123	0.019	0.1614	0.06306	-1.14	75-125	0			S

MSD Sample ID: **20111726-41AMSD** Units: **mg/Kg** Analysis Date: **12/1/2020 09:20 AM**
Client ID: Run ID: **HG4_201201A** SeqNo: **6944447** Prep Date: **11/30/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.347	0.020	0.1643	0.06306	173	75-125	0.06123	140	35	SRE

The following samples were analyzed in this batch: 20111403-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167860** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-167860-167860** Units: **mg/Kg** Analysis Date: **11/17/2020 09:04 PM**
Client ID: Run ID: **ICPMS3_201117B** SeqNo: **6908327** Prep Date: **11/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	U	0.10								
Chromium	U	0.25								
Lead	U	0.25								
Selenium	U	0.25								
Silver	U	0.25								

LCS Sample ID: **LCS-167860-167860** Units: **mg/Kg** Analysis Date: **11/17/2020 09:06 PM**
Client ID: Run ID: **ICPMS3_201117B** SeqNo: **6908328** Prep Date: **11/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.101	0.25	5	0	102	80-120	0			
Barium	5.047	0.25	5	0	101	80-120	0			
Cadmium	5.156	0.10	5	0	103	80-120	0			
Chromium	5.484	0.25	5	0	110	80-120	0			
Lead	5.18	0.25	5	0	104	80-120	0			
Selenium	4.984	0.25	5	0	99.7	80-120	0			
Silver	5.196	0.25	5	0	104	80-120	0			

MS Sample ID: **20111507-01BMS** Units: **mg/Kg** Analysis Date: **11/17/2020 09:53 PM**
Client ID: Run ID: **ICPMS3_201117B** SeqNo: **6908355** Prep Date: **11/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.097	0.33	6.519	1.631	99.2	75-125	0			
Barium	186.2	0.33	6.519	191.5	-80.6	75-125	0			SEO
Cadmium	6.646	0.13	6.519	0.2922	97.5	75-125	0			
Chromium	12.34	0.33	6.519	4.609	119	75-125	0			
Lead	60.62	0.33	6.519	56.58	62.1	75-125	0			SO
Selenium	6.585	0.33	6.519	0.4286	94.4	75-125	0			
Silver	6.468	0.33	6.519	0.01567	99	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167860** Instrument ID **ICPMS3** Method: **SW6020B**

MSD	Sample ID: **20111507-01BMSD**				Units: **mg/Kg**		Analysis Date: **11/17/2020 09:54 PM**			
Client ID:		Run ID: **ICPMS3_201117B**			SeqNo: **6908356**		Prep Date: **11/17/2020**	DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.936	0.35	6.925	1.631	105	75-125	8.097	9.86	20	
Barium	221.3	0.35	6.925	191.5	431	75-125	186.2	17.2	20	SEO
Cadmium	7.287	0.14	6.925	0.2922	101	75-125	6.646	9.2	20	
Chromium	13.69	0.35	6.925	4.609	131	75-125	12.34	10.3	20	S
Lead	68.15	0.35	6.925	56.58	167	75-125	60.62	11.7	20	SO
Selenium	7.01	0.35	6.925	0.4286	95	75-125	6.585	6.25	20	
Silver	7.129	0.35	6.925	0.01567	103	75-125	6.468	9.72	20	

The following samples were analyzed in this batch:

20111403-01B	20111403-02B	20111403-03B
20111403-04B	20111403-05B	20111403-06B
20111403-07B	20111403-08B	20111403-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

MBLK	Sample ID: **SBLKS1-167928-167928**			Units: **µg/Kg**		Analysis Date: **11/20/2020 12:50 PM**			
Client ID:	Run ID: **SVMS9_201120A**			SeqNo: **6930219**		Prep Date: **11/18/2020**		DF: **1**	

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	33								
2,4,5-Trichlorophenol	U	33								
2,4,6-Trichlorophenol	U	33								
2,4-Dichlorophenol	U	33								
2,4-Dimethylphenol	U	33								
2,4-Dinitrophenol	U	670								
2,4-Dinitrotoluene	U	33								
2,6-Dinitrotoluene	U	33								
2-Chloronaphthalene	U	6.7								
2-Chlorophenol	U	33								
2-Methylnaphthalene	U	6.7								
2-Methylphenol	U	33								
2-Nitroaniline	U	33								
2-Nitrophenol	U	33								
3&4-Methylphenol	U	33								
3,3´-Dichlorobenzidine	U	170								
3-Nitroaniline	U	33								
4,6-Dinitro-2-methylphenol	U	33								
4-Bromophenyl phenyl ether	U	33								
4-Chloro-3-methylphenol	U	33								
4-Chloroaniline	U	67								
4-Chlorophenyl phenyl ether	U	33								
4-Nitroaniline	U	170								
4-Nitrophenol	U	170								
Acenaphthene	U	6.7								
Acenaphthylene	U	6.7								
Acetophenone	U	33								
Anthracene	U	6.7								
Atrazine	U	33								
Benzaldehyde	U	67								
Benzo(a)anthracene	U	6.7								
Benzo(a)pyrene	U	6.7								
Benzo(b)fluoranthene	U	6.7								
Benzo(g,h,i)perylene	U	6.7								
Benzo(k)fluoranthene	U	6.7								
Bis(2-chloroethoxy)methane	U	33								
Bis(2-chloroethyl)ether	U	33								
Bis(2-chloroisopropyl)ether	U	33								
Bis(2-ethylhexyl)phthalate	U	33								
Butyl benzyl phthalate	U	67								
Caprolactam	U	67								
Carbazole	U	33								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	U	6.7					
Dibenzo(a,h)anthracene	U	6.7					
Dibenzofuran	U	33					
Diethyl phthalate	U	33					
Dimethyl phthalate	U	33					
Di-n-butyl phthalate	U	33					
Di-n-octyl phthalate	U	33					
Fluoranthene	U	6.7					
Fluorene	U	6.7					
Hexachlorobenzene	U	33					
Hexachlorobutadiene	U	33					
Hexachlorocyclopentadiene	U	33					
Hexachloroethane	U	33					
Indeno(1,2,3-cd)pyrene	U	6.7					
Isophorone	U	170					
Naphthalene	U	6.7					
Nitrobenzene	U	170					
N-Nitrosodi-n-propylamine	U	33					
N-Nitrosodiphenylamine	U	33					
Pentachlorophenol	U	33					
Phenanthrene	U	6.7					
Phenol	U	33					
Pyrene	U	6.7					
Surr: 2,4,6-Tribromophenol	*2601*	0	*3333*	0	*78*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2700*	0	*3333*	0	*81*	*44-107*	0
Surr: 2-Fluorophenol	*2701*	0	*3333*	0	*81*	*37-109*	0
Surr: 4-Terphenyl-d14	*3010*	0	*3333*	0	*90.3*	*52-123*	0
Surr: Nitrobenzene-d5	*2665*	0	*3333*	0	*80*	*41-94*	0
Surr: Phenol-d6	*3103*	0	*3333*	0	*93.1*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

LCS	Sample ID: **SLCSS1-167928-167928**			Units: **µg/Kg**			Analysis Date: **11/20/2020 01:14 PM**			
Client ID:	Run ID: **SVMS9_201120A**			SeqNo: **6930220**			Prep Date: **11/18/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1161	33	1333	0	87.1	53-97	0			
2,4,5-Trichlorophenol	1107	33	1333	0	83.1	52-111	0			
2,4,6-Trichlorophenol	1120	33	1333	0	84	46-105	0			
2,4-Dichlorophenol	1075	33	1333	0	80.7	47-96	0			
2,4-Dimethylphenol	1464	33	1333	0	110	49-97	0			S
2,4-Dinitrophenol	544	670	1333	0	40.8	10-106	0			J
2,4-Dinitrotoluene	1151	33	1333	0	86.4	58-110	0			
2,6-Dinitrotoluene	1127	33	1333	0	84.5	59-108	0			
2-Chloronaphthalene	1118	6.7	1333	0	83.9	56-104	0			
2-Chlorophenol	1083	33	1333	0	81.2	50-104	0			
2-Methylnaphthalene	1127	6.7	1333	0	84.5	54-96	0			
2-Methylphenol	1218	33	1333	0	91.4	49-105	0			
2-Nitroaniline	1229	33	1333	0	92.2	54-107	0			
2-Nitrophenol	1068	33	1333	0	80.1	51-94	0			
3&4-Methylphenol	1199	33	1333	0	89.9	48-105	0			
3,3´-Dichlorobenzidine	1172	170	1333	0	87.9	39-99	0			
3-Nitroaniline	862	33	1333	0	64.7	17-92	0			
4,6-Dinitro-2-methylphenol	837.3	33	1333	0	62.8	32-103	0			
4-Bromophenyl phenyl ether	1155	33	1333	0	86.6	60-106	0			
4-Chloro-3-methylphenol	1220	33	1333	0	91.5	51-101	0			
4-Chloroaniline	1117	67	1333	0	83.8	27-110	0			
4-Chlorophenyl phenyl ether	1186	33	1333	0	89	58-106	0			
4-Nitroaniline	1142	170	1333	0	85.7	21-100	0			
4-Nitrophenol	976	170	1333	0	73.2	29-120	0			
Acenaphthene	1171	6.7	1333	0	87.9	55-101	0			
Acenaphthylene	1245	6.7	1333	0	93.4	59-106	0			
Acetophenone	1143	33	1333	0	85.7	51-100	0			
Anthracene	1203	6.7	1333	0	90.2	67-105	0			
Atrazine	1300	33	1333	0	97.5	45-125	0			
Benzaldehyde	386	67	1333	0	29	10-120	0			
Benzo(a)anthracene	1201	6.7	1333	0	90.1	68-105	0			
Benzo(a)pyrene	1225	6.7	1333	0	91.9	68-110	0			
Benzo(b)fluoranthene	1219	6.7	1333	0	91.4	65-110	0			
Benzo(g,h,i)perylene	1390	6.7	1333	0	104	60-120	0			
Benzo(k)fluoranthene	1159	6.7	1333	0	87	66-113	0			
Bis(2-chloroethoxy)methane	1140	33	1333	0	85.5	53-96	0			
Bis(2-chloroethyl)ether	1088	33	1333	0	81.6	47-108	0			
Bis(2-chloroisopropyl)ether	1117	33	1333	0	83.8	47-107	0			
Bis(2-ethylhexyl)phthalate	1219	33	1333	0	91.5	59-117	0			
Butyl benzyl phthalate	1181	67	1333	0	88.6	59-106	0			
Caprolactam	1159	67	1333	0	86.9	42-105	0			
Carbazole	1248	33	1333	0	93.6	67-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	1239	6.7	1333	0	92.9	68-108	0
Dibenzo(a,h)anthracene	1345	6.7	1333	0	101	62-119	0
Dibenzofuran	1169	33	1333	0	87.7	60-104	0
Diethyl phthalate	1163	33	1333	0	87.3	62-111	0
Dimethyl phthalate	1177	33	1333	0	88.3	62-106	0
Di-n-butyl phthalate	1257	33	1333	0	94.3	59-105	0
Di-n-octyl phthalate	1149	33	1333	0	86.2	51-123	0
Fluoranthene	1198	6.7	1333	0	89.9	67-106	0
Fluorene	1199	6.7	1333	0	90	59-107	0
Hexachlorobenzene	1166	33	1333	0	87.5	62-103	0
Hexachlorobutadiene	1111	33	1333	0	83.3	51-94	0
Hexachlorocyclopentadiene	1217	33	1333	0	91.3	25-120	0
Hexachloroethane	1068	33	1333	0	80.1	55-93	0
Indeno(1,2,3-cd)pyrene	1370	6.7	1333	0	103	56-120	0
Isophorone	1185	170	1333	0	88.9	52-99	0
Naphthalene	1087	6.7	1333	0	81.5	46-98	0
Nitrobenzene	1125	170	1333	0	84.4	53-95	0
N-Nitrosodi-n-propylamine	1149	33	1333	0	86.2	50-104	0
N-Nitrosodiphenylamine	1171	33	1333	0	87.8	63-107	0
Pentachlorophenol	820.7	33	1333	0	61.6	34-106	0
Phenanthrene	1183	6.7	1333	0	88.7	66-101	0
Phenol	1129	33	1333	0	84.7	44-109	0
Pyrene	1160	6.7	1333	0	87	60-119	0
Surr: 2,4,6-Tribromophenol	*2762*	0	*3333*	0	*82.9*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2712*	0	*3333*	0	*81.4*	*44-107*	0
Surr: 2-Fluorophenol	*2518*	0	*3333*	0	*75.5*	*37-109*	0
Surr: 4-Terphenyl-d14	*2911*	0	*3333*	0	*87.3*	*52-123*	0
Surr: Nitrobenzene-d5	*2700*	0	*3333*	0	*81*	*41-94*	0
Surr: Phenol-d6	*2968*	0	*3333*	0	*89*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

MS	Sample ID: **20111360-12A MS**				Units: **µg/Kg**		Analysis Date: **11/20/2020 03:14 PM**			
Client ID:		Run ID: **SVMS9_201120A**			SeqNo: **6930225**		Prep Date: **11/18/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1104	32	1296	0	85.2	53-97	0			
2,4,5-Trichlorophenol	1201	32	1296	0	92.7	52-111	0			
2,4,6-Trichlorophenol	1164	32	1296	0	89.8	46-105	0			
2,4-Dichlorophenol	1105	32	1296	0	85.3	47-96	0			
2,4-Dimethylphenol	1450	32	1296	0	112	49-97	0			S
2,4-Dinitrophenol	242.4	650	1296	0	18.7	10-106	0			J
2,4-Dinitrotoluene	1148	32	1296	0	88.6	58-110	0			
2,6-Dinitrotoluene	1119	32	1296	0	86.4	59-108	0			
2-Chloronaphthalene	1061	6.5	1296	0	81.9	56-104	0			
2-Chlorophenol	1075	32	1296	0	83	50-104	0			
2-Methylnaphthalene	1106	6.5	1296	13.68	84.3	54-96	0			
2-Methylphenol	1160	32	1296	0	89.5	49-105	0			
2-Nitroaniline	1218	32	1296	0	94	54-107	0			
2-Nitrophenol	1061	32	1296	0	81.9	51-94	0			
3&4-Methylphenol	1167	32	1296	0	90.1	48-105	0			
3,3´-Dichlorobenzidine	939	160	1296	0	72.5	39-99	0			
3-Nitroaniline	889.1	32	1296	0	68.6	17-92	0			
4,6-Dinitro-2-methylphenol	566.4	32	1296	0	43.7	32-103	0			
4-Bromophenyl phenyl ether	1170	32	1296	0	90.3	60-106	0			
4-Chloro-3-methylphenol	1216	32	1296	0	93.8	51-101	0			
4-Chloroaniline	1080	65	1296	0	83.4	27-110	0			
4-Chlorophenyl phenyl ether	1171	32	1296	0	90.4	58-106	0			
4-Nitroaniline	1125	160	1296	0	86.8	21-100	0			
4-Nitrophenol	1121	160	1296	0	86.5	29-120	0			
Acenaphthene	1124	6.5	1296	0	86.7	55-101	0			
Acenaphthylene	1220	6.5	1296	0	94.2	59-106	0			
Acetophenone	1079	32	1296	0	83.3	51-100	0			
Anthracene	1207	6.5	1296	0	93.1	67-105	0			
Atrazine	1335	32	1296	0	103	45-125	0			
Benzaldehyde	462	65	1296	0	35.7	10-120	0			
Benzo(a)anthracene	1248	6.5	1296	0	96.3	68-105	0			
Benzo(a)pyrene	1238	6.5	1296	7.167	95	68-110	0			
Benzo(b)fluoranthene	1266	6.5	1296	9.773	96.9	65-110	0			
Benzo(g,h,i)perylene	1382	6.5	1296	0	107	60-120	0			
Benzo(k)fluoranthene	1135	6.5	1296	4.561	87.3	66-113	0			
Bis(2-chloroethoxy)methane	1064	32	1296	0	82.1	53-96	0			
Bis(2-chloroethyl)ether	1038	32	1296	0	80.1	47-108	0			
Bis(2-chloroisopropyl)ether	1074	32	1296	0	82.9	47-107	0			
Bis(2-ethylhexyl)phthalate	1271	32	1296	0	98.1	59-117	0			
Butyl benzyl phthalate	1271	65	1296	0	98.1	59-106	0			
Caprolactam	1258	65	1296	0	97.1	42-105	0			
Carbazole	1246	32	1296	0	96.2	67-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	1223	6.5	1296	0	94.4	68-108	0
Dibenzo(a,h)anthracene	1341	6.5	1296	0	103	62-119	0
Dibenzofuran	1148	32	1296	0	88.6	60-104	0
Diethyl phthalate	1166	32	1296	0	90	62-111	0
Dimethyl phthalate	1163	32	1296	0	89.7	62-106	0
Di-n-butyl phthalate	1274	32	1296	0	98.3	59-105	0
Di-n-octyl phthalate	1231	32	1296	0	95	51-123	0
Fluoranthene	1222	6.5	1296	0	94.3	67-106	0
Fluorene	1161	6.5	1296	0	89.6	59-107	0
Hexachlorobenzene	1152	32	1296	0	88.9	62-103	0
Hexachlorobutadiene	1062	32	1296	0	82	51-94	0
Hexachlorocyclopentadiene	1024	32	1296	0	79	25-120	0
Hexachloroethane	1061	32	1296	0	81.9	55-93	0
Indeno(1,2,3-cd)pyrene	1383	6.5	1296	0	107	56-120	0
Isophorone	1133	160	1296	0	87.4	52-99	0
Naphthalene	1117	6.5	1296	9.773	85.5	46-98	0
Nitrobenzene	1065	160	1296	0	82.2	53-95	0
N-Nitrosodi-n-propylamine	1059	32	1296	0	81.7	50-104	0
N-Nitrosodiphenylamine	1176	32	1296	0	90.8	63-107	0
Pentachlorophenol	1068	32	1296	0	82.4	34-106	0
Phenanthrene	1200	6.5	1296	0	92.6	66-101	0
Phenol	1091	32	1296	0	84.2	44-109	0
Pyrene	1174	6.5	1296	0	90.6	60-119	0
Surr: 2,4,6-Tribromophenol	*2818*	0	*3240*	0	*87*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2558*	0	*3240*	0	*78.9*	*44-107*	0
Surr: 2-Fluorophenol	*2527*	0	*3240*	0	*78*	*37-109*	0
Surr: 4-Terphenyl-d14	*2920*	0	*3240*	0	*90.1*	*52-123*	0
Surr: Nitrobenzene-d5	*2521*	0	*3240*	0	*77.8*	*41-94*	0
Surr: Phenol-d6	*2887*	0	*3240*	0	*89.1*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

MSD	Sample ID: **20111360-12A MSD**				Units: **µg/Kg**		Analysis Date: **11/20/2020 03:38 PM**			
Client ID:	Run ID: **SVMS9_201120A**				SeqNo: **6930226**		Prep Date: **11/18/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1082	32	1293	0	83.7	53-97	1104	1.95	30	
2,4,5-Trichlorophenol	1150	32	1293	0	88.9	52-111	1201	4.36	30	
2,4,6-Trichlorophenol	1142	32	1293	0	88.3	46-105	1164	1.86	30	
2,4-Dichlorophenol	1074	32	1293	0	83.1	47-96	1105	2.85	30	
2,4-Dimethylphenol	1419	32	1293	0	110	49-97	1450	2.21	30	S
2,4-Dinitrophenol	U	650	1293	0	0	10-106	242.4	0	30	S
2,4-Dinitrotoluene	1067	32	1293	0	82.5	58-110	1148	7.31	30	
2,6-Dinitrotoluene	1053	32	1293	0	81.4	59-108	1119	6.08	30	
2-Chloronaphthalene	1049	6.5	1293	0	81.1	56-104	1061	1.09	30	
2-Chlorophenol	1041	32	1293	0	80.5	50-104	1075	3.17	30	
2-Methylnaphthalene	1069	6.5	1293	13.68	81.6	54-96	1106	3.45	30	
2-Methylphenol	1141	32	1293	0	88.2	49-105	1160	1.64	30	
2-Nitroaniline	1195	32	1293	0	92.4	54-107	1218	1.89	30	
2-Nitrophenol	1054	32	1293	0	81.5	51-94	1061	0.665	30	
3&4-Methylphenol	1137	32	1293	0	87.9	48-105	1167	2.59	30	
3,3´-Dichlorobenzidine	942.5	160	1293	0	72.9	39-99	939	0.376	30	
3-Nitroaniline	762	32	1293	0	58.9	17-92	889.1	15.4	30	
4,6-Dinitro-2-methylphenol	487.1	32	1293	0	37.7	32-103	566.4	15	30	
4-Bromophenyl phenyl ether	1099	32	1293	0	85	60-106	1170	6.22	30	
4-Chloro-3-methylphenol	1155	32	1293	0	89.3	51-101	1216	5.15	30	
4-Chloroaniline	986.5	65	1293	0	76.3	27-110	1080	9.07	30	
4-Chlorophenyl phenyl ether	1098	32	1293	0	84.9	58-106	1171	6.39	30	
4-Nitroaniline	1104	160	1293	0	85.4	21-100	1125	1.86	30	
4-Nitrophenol	1036	160	1293	0	80.1	29-120	1121	7.86	30	
Acenaphthene	1095	6.5	1293	0	84.6	55-101	1124	2.63	30	
Acenaphthylene	1171	6.5	1293	0	90.6	59-106	1220	4.07	30	
Acetophenone	1045	32	1293	0	80.8	51-100	1079	3.16	30	
Anthracene	1137	6.5	1293	0	87.9	67-105	1207	5.92	30	
Atrazine	1261	32	1293	0	97.5	45-125	1335	5.66	30	
Benzaldehyde	424.3	65	1293	0	32.8	10-120	462	8.5	30	
Benzo(a)anthracene	1177	6.5	1293	0	91	68-105	1248	5.83	30	
Benzo(a)pyrene	1177	6.5	1293	7.167	90.4	68-110	1238	5.06	30	
Benzo(b)fluoranthene	1174	6.5	1293	9.773	90	65-110	1266	7.5	30	
Benzo(g,h,i)perylene	1325	6.5	1293	0	102	60-120	1382	4.14	30	
Benzo(k)fluoranthene	1096	6.5	1293	4.561	84.4	66-113	1135	3.48	30	
Bis(2-chloroethoxy)methane	1036	32	1293	0	80.1	53-96	1064	2.7	30	
Bis(2-chloroethyl)ether	1019	32	1293	0	78.8	47-108	1038	1.87	30	
Bis(2-chloroisopropyl)ether	1054	32	1293	0	81.5	47-107	1074	1.88	30	
Bis(2-ethylhexyl)phthalate	1190	32	1293	0	92	59-117	1271	6.6	30	
Butyl benzyl phthalate	1193	65	1293	0	92.3	59-106	1271	6.27	30	
Caprolactam	1167	65	1293	0	90.2	42-105	1258	7.49	30	
Carbazole	1193	32	1293	0	92.3	67-108	1246	4.31	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167928** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	1174	6.5	1293	0	90.8	68-108	1223	4.06	30
Dibenzo(a,h)anthracene	1277	6.5	1293	0	98.7	62-119	1341	4.87	30
Dibenzofuran	1106	32	1293	0	85.5	60-104	1148	3.74	30
Diethyl phthalate	1104	32	1293	0	85.3	62-111	1166	5.48	30
Dimethyl phthalate	1097	32	1293	0	84.8	62-106	1163	5.79	30
Di-n-butyl phthalate	1187	32	1293	0	91.8	59-105	1274	7.07	30
Di-n-octyl phthalate	1148	32	1293	0	88.7	51-123	1231	6.98	30
Fluoranthene	1162	6.5	1293	0	89.8	67-106	1222	5.06	30
Fluorene	1106	6.5	1293	0	85.5	59-107	1161	4.86	30
Hexachlorobenzene	1099	32	1293	0	85	62-103	1152	4.72	30
Hexachlorobutadiene	1041	32	1293	0	80.5	51-94	1062	1.96	30
Hexachlorocyclopentadiene	1025	32	1293	0	79.3	25-120	1024	0.141	30
Hexachloroethane	1025	32	1293	0	79.3	55-93	1061	3.46	30
Indeno(1,2,3-cd)pyrene	1313	6.5	1293	0	102	56-120	1383	5.22	30
Isophorone	1106	160	1293	0	85.5	52-99	1133	2.43	30
Naphthalene	1090	6.5	1293	9.773	83.5	46-98	1117	2.46	30
Nitrobenzene	1035	160	1293	0	80	53-95	1065	2.89	30
N-Nitrosodi-n-propylamine	1050	32	1293	0	81.2	50-104	1059	0.851	30
N-Nitrosodiphenylamine	1118	32	1293	0	86.5	63-107	1176	5.03	30
Pentachlorophenol	1041	32	1293	0	80.5	34-106	1068	2.51	30
Phenanthrene	1142	6.5	1293	0	88.3	66-101	1200	4.93	30
Phenol	1078	32	1293	0	83.3	44-109	1091	1.25	30
Pyrene	1115	6.5	1293	0	86.2	60-119	1174	5.16	30
Surr: 2,4,6-Tribromophenol	*2692*	0	*3234*	0	*83.2*	*38-92*	2818	*4.59*	*40*
Surr: 2-Fluorobiphenyl	*2525*	0	*3234*	0	*78.1*	*44-107*	2558	*1.27*	*40*
Surr: 2-Fluorophenol	*2444*	0	*3234*	0	*75.6*	*37-109*	2527	*3.35*	*40*
Surr: 4-Terphenyl-d14	*2754*	0	*3234*	0	*85.1*	*52-123*	2920	*5.86*	*40*
Surr: Nitrobenzene-d5	*2487*	0	*3234*	0	*76.9*	*41-94*	2521	*1.34*	*40*
Surr: Phenol-d6	*2766*	0	*3234*	0	*85.5*	*28-111*	2887	*4.28*	*40*

The following samples were analyzed in this batch:

20111403-01B	20111403-02B	20111403-03B
20111403-04B	20111403-05B	20111403-06B
20111403-07B	20111403-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-168076-168076** Units: **µg/Kg** Analysis Date: **11/23/2020 09:25 PM**
Client ID: Run ID: **SVMS9_201123A** SeqNo: **6932663** Prep Date: **11/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	33								
2,4,5-Trichlorophenol	U	33								
2,4,6-Trichlorophenol	U	33								
2,4-Dichlorophenol	U	33								
2,4-Dimethylphenol	U	33								
2,4-Dinitrophenol	U	670								
2,4-Dinitrotoluene	U	33								
2,6-Dinitrotoluene	U	33								
2-Chloronaphthalene	U	6.7								
2-Chlorophenol	U	33								
2-Methylnaphthalene	U	6.7								
2-Methylphenol	U	33								
2-Nitroaniline	U	33								
2-Nitrophenol	U	33								
3&4-Methylphenol	U	33								
3,3´-Dichlorobenzidine	U	170								
3-Nitroaniline	U	33								
4,6-Dinitro-2-methylphenol	U	33								
4-Bromophenyl phenyl ether	U	33								
4-Chloro-3-methylphenol	U	33								
4-Chloroaniline	U	67								
4-Chlorophenyl phenyl ether	U	33								
4-Nitroaniline	U	170								
4-Nitrophenol	U	170								
Acenaphthene	U	6.7								
Acenaphthylene	U	6.7								
Acetophenone	U	33								
Anthracene	U	6.7								
Atrazine	U	33								
Benzaldehyde	U	67								
Benzo(a)anthracene	U	6.7								
Benzo(a)pyrene	U	6.7								
Benzo(b)fluoranthene	U	6.7								
Benzo(g,h,i)perylene	U	6.7								
Benzo(k)fluoranthene	U	6.7								
Bis(2-chloroethoxy)methane	U	33								
Bis(2-chloroethyl)ether	U	33								
Bis(2-chloroisopropyl)ether	U	33								
Bis(2-ethylhexyl)phthalate	U	33								
Butyl benzyl phthalate	U	67								
Caprolactam	U	67								
Carbazole	U	33								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	U	6.7					
Dibenzo(a,h)anthracene	U	6.7					
Dibenzofuran	U	33					
Diethyl phthalate	U	33					
Dimethyl phthalate	U	33					
Di-n-butyl phthalate	U	33					
Di-n-octyl phthalate	U	33					
Fluoranthene	U	6.7					
Fluorene	U	6.7					
Hexachlorobenzene	U	33					
Hexachlorobutadiene	U	33					
Hexachlorocyclopentadiene	U	33					
Hexachloroethane	U	33					
Indeno(1,2,3-cd)pyrene	U	6.7					
Isophorone	U	170					
Naphthalene	U	6.7					
Nitrobenzene	U	170					
N-Nitrosodi-n-propylamine	U	33					
N-Nitrosodiphenylamine	U	33					
Pentachlorophenol	U	33					
Phenanthrene	U	6.7					
Phenol	U	33					
Pyrene	U	6.7					
Surr: 2,4,6-Tribromophenol	*2329*	0	*3333*	0	*69.9*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2630*	0	*3333*	0	*78.9*	*44-107*	0
Surr: 2-Fluorophenol	*2459*	0	*3333*	0	*73.8*	*37-109*	0
Surr: 4-Terphenyl-d14	*2595*	0	*3333*	0	*77.9*	*52-123*	0
Surr: Nitrobenzene-d5	*2349*	0	*3333*	0	*70.5*	*41-94*	0
Surr: Phenol-d6	*2702*	0	*3333*	0	*81.1*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

LCS	Sample ID: **SLCSS1-168076-168076**				Units: **µg/Kg**			Analysis Date: **11/23/2020 09:48 PM**			
Client ID:		Run ID: **SVMS9_201123A**			SeqNo: **6932664**			Prep Date: **11/20/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1025	33	1333	0	76.9	53-97	0			
2,4,5-Trichlorophenol	1050	33	1333	0	78.8	52-111	0			
2,4,6-Trichlorophenol	992	33	1333	0	74.4	46-105	0			
2,4-Dichlorophenol	1007	33	1333	0	75.5	47-96	0			
2,4-Dimethylphenol	924	33	1333	0	69.3	49-97	0			
2,4-Dinitrophenol	732	670	1333	0	54.9	10-106	0			
2,4-Dinitrotoluene	1087	33	1333	0	81.6	58-110	0			
2,6-Dinitrotoluene	1082	33	1333	0	81.2	59-108	0			
2-Chloronaphthalene	1007	6.7	1333	0	75.6	56-104	0			
2-Chlorophenol	977.3	33	1333	0	73.3	50-104	0			
2-Methylnaphthalene	1018	6.7	1333	0	76.4	54-96	0			
2-Methylphenol	1004	33	1333	0	75.3	49-105	0			
2-Nitroaniline	1088	33	1333	0	81.6	54-107	0			
2-Nitrophenol	969.3	33	1333	0	72.7	51-94	0			
3&4-Methylphenol	1040	33	1333	0	78	48-105	0			
3,3´-Dichlorobenzidine	918.7	170	1333	0	68.9	39-99	0			
3-Nitroaniline	844.7	33	1333	0	63.4	17-92	0			
4,6-Dinitro-2-methylphenol	1009	33	1333	0	75.7	32-103	0			
4-Bromophenyl phenyl ether	1093	33	1333	0	82	60-106	0			
4-Chloro-3-methylphenol	1067	33	1333	0	80	51-101	0			
4-Chloroaniline	1077	67	1333	0	80.8	27-110	0			
4-Chlorophenyl phenyl ether	1068	33	1333	0	80.1	58-106	0			
4-Nitroaniline	549.3	170	1333	0	41.2	21-100	0			
4-Nitrophenol	1073	170	1333	0	80.5	29-120	0			
Acenaphthene	984	6.7	1333	0	73.8	55-101	0			
Acenaphthylene	1000	6.7	1333	0	75	59-106	0			
Acetophenone	1012	33	1333	0	75.9	51-100	0			
Anthracene	1093	6.7	1333	0	82	67-105	0			
Atrazine	1152	33	1333	0	86.4	45-125	0			
Benzaldehyde	247.3	67	1333	0	18.6	10-120	0			
Benzo(a)anthracene	1085	6.7	1333	0	81.4	68-105	0			
Benzo(a)pyrene	1105	6.7	1333	0	82.9	68-110	0			
Benzo(b)fluoranthene	1116	6.7	1333	0	83.7	65-110	0			
Benzo(g,h,i)perylene	1097	6.7	1333	0	82.3	60-120	0			
Benzo(k)fluoranthene	1130	6.7	1333	0	84.8	66-113	0			
Bis(2-chloroethoxy)methane	1007	33	1333	0	75.6	53-96	0			
Bis(2-chloroethyl)ether	988.7	33	1333	0	74.2	47-108	0			
Bis(2-chloroisopropyl)ether	1007	33	1333	0	75.5	47-107	0			
Bis(2-ethylhexyl)phthalate	1077	33	1333	0	80.8	59-117	0			
Butyl benzyl phthalate	1078	67	1333	0	80.9	59-106	0			
Caprolactam	1006	67	1333	0	75.5	42-105	0			
Carbazole	1144	33	1333	0	85.8	67-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	1104	6.7	1333	0	82.8	68-108	0
Dibenzo(a,h)anthracene	1075	6.7	1333	0	80.6	62-119	0
Dibenzofuran	1047	33	1333	0	78.5	60-104	0
Diethyl phthalate	1103	33	1333	0	82.7	62-111	0
Dimethyl phthalate	1095	33	1333	0	82.1	62-106	0
Di-n-butyl phthalate	1151	33	1333	0	86.3	59-105	0
Di-n-octyl phthalate	1064	33	1333	0	79.8	51-123	0
Fluoranthene	1110	6.7	1333	0	83.3	67-106	0
Fluorene	1083	6.7	1333	0	81.2	59-107	0
Hexachlorobenzene	1097	33	1333	0	82.3	62-103	0
Hexachlorobutadiene	972.7	33	1333	0	73	51-94	0
Hexachlorocyclopentadiene	948	33	1333	0	71.1	25-120	0
Hexachloroethane	974	33	1333	0	73.1	55-93	0
Indeno(1,2,3-cd)pyrene	1072	6.7	1333	0	80.4	56-120	0
Isophorone	1017	170	1333	0	76.3	52-99	0
Naphthalene	988	6.7	1333	0	74.1	46-98	0
Nitrobenzene	993.3	170	1333	0	74.5	53-95	0
N-Nitrosodi-n-propylamine	1019	33	1333	0	76.5	50-104	0
N-Nitrosodiphenylamine	1093	33	1333	0	82	63-107	0
Pentachlorophenol	1005	33	1333	0	75.4	34-106	0
Phenanthrene	1099	6.7	1333	0	82.4	66-101	0
Phenol	988.7	33	1333	0	74.2	44-109	0
Pyrene	1106	6.7	1333	0	83	60-119	0
Surr: 2,4,6-Tribromophenol	*2477*	0	*3333*	0	*74.3*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2463*	0	*3333*	0	*73.9*	*44-107*	0
Surr: 2-Fluorophenol	*2313*	0	*3333*	0	*69.4*	*37-109*	0
Surr: 4-Terphenyl-d14	*2571*	0	*3333*	0	*77.1*	*52-123*	0
Surr: Nitrobenzene-d5	*2231*	0	*3333*	0	*66.9*	*41-94*	0
Surr: Phenol-d6	*2476*	0	*3333*	0	*74.3*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

MS Sample ID: **20111733-01B MS** Units: **µg/Kg** Analysis Date: **11/24/2020 01:19 AM**
Client ID: Run ID: **SVMS9_201123A** SeqNo: **6932673** Prep Date: **11/20/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1018	630	1272	0	80	53-97	0			
2,4,5-Trichlorophenol	1056	630	1272	0	83	52-111	0			
2,4,6-Trichlorophenol	1069	630	1272	0	84	46-105	0			
2,4-Dichlorophenol	1005	630	1272	0	79	47-96	0			
2,4-Dimethylphenol	865.1	630	1272	0	68	49-97	0			
2,4-Dinitrophenol	U	13,000	1272	0	0	10-106	0			S
2,4-Dinitrotoluene	1438	630	1272	0	113	58-110	0			S
2,6-Dinitrotoluene	992.3	630	1272	0	78	59-108	0			
2-Chloronaphthalene	903.3	130	1272	0	71	56-104	0			
2-Chlorophenol	1005	630	1272	0	79	50-104	0			
2-Methylnaphthalene	992.3	130	1272	0	78	54-96	0			
2-Methylphenol	1043	630	1272	0	82	49-105	0			
2-Nitroaniline	1081	630	1272	0	85	54-107	0			
2-Nitrophenol	687	630	1272	0	54	51-94	0			
3&4-Methylphenol	1056	630	1272	0	83	48-105	0			
3,3´-Dichlorobenzidine	916	3,200	1272	0	72	39-99	0			J
3-Nitroaniline	1005	630	1272	0	79	17-92	0			
4,6-Dinitro-2-methylphenol	U	630	1272	0	0	32-103	0			S
4-Bromophenyl phenyl ether	1030	630	1272	0	81	60-106	0			
4-Chloro-3-methylphenol	1158	630	1272	0	91	51-101	0			
4-Chloroaniline	801.5	1,300	1272	0	63	27-110	0			J
4-Chlorophenyl phenyl ether	1043	630	1272	0	82	58-106	0			
4-Nitroaniline	1349	3,200	1272	0	106	21-100	0			JS
4-Nitrophenol	U	3,200	1272	0	0	29-120	0			S
Acenaphthene	941.4	130	1272	0	74	55-101	0			
Acenaphthylene	992.3	130	1272	0	78	59-106	0			
Acetophenone	979.6	630	1272	0	77	51-100	0			
Anthracene	1056	130	1272	0	83	67-105	0			
Atrazine	1170	630	1272	0	92	45-125	0			
Benzaldehyde	U	1,300	1272	0	0	10-120	0			S
Benzo(a)anthracene	1158	130	1272	0	91	68-105	0			
Benzo(a)pyrene	1145	130	1272	0	90	68-110	0			
Benzo(b)fluoranthene	1221	130	1272	0	96	65-110	0			
Benzo(g,h,i)perylene	1005	130	1272	0	79	60-120	0			
Benzo(k)fluoranthene	1107	130	1272	0	87	66-113	0			
Bis(2-chloroethoxy)methane	954.1	630	1272	0	75	53-96	0			
Bis(2-chloroethyl)ether	877.8	630	1272	0	69	47-108	0			
Bis(2-chloroisopropyl)ether	1005	630	1272	0	79	47-107	0			
Bis(2-ethylhexyl)phthalate	1336	630	1272	0	105	59-117	0			
Butyl benzyl phthalate	1158	1,300	1272	0	91	59-106	0			J
Caprolactam	1120	1,300	1272	0	88	42-105	0			J
Carbazole	1170	630	1272	0	92	67-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	1056	130	1272	0	83	68-108	0	
Dibenzo(a,h)anthracene	928.7	130	1272	0	73	62-119	0	
Dibenzofuran	1056	630	1272	0	83	60-104	0	
Diethyl phthalate	1120	630	1272	0	88	62-111	0	
Dimethyl phthalate	1043	630	1272	0	82	62-106	0	
Di-n-butyl phthalate	1221	630	1272	0	96	59-105	0	
Di-n-octyl phthalate	1450	630	1272	0	114	51-123	0	
Fluoranthene	1361	130	1272	169	93.7	67-106	0	
Fluorene	1030	130	1272	0	81	59-107	0	
Hexachlorobenzene	966.9	630	1272	0	76	62-103	0	
Hexachlorobutadiene	852.4	630	1272	0	67	51-94	0	
Hexachlorocyclopentadiene	U	630	1272	0	0	25-120	0	S
Hexachloroethane	852.4	630	1272	0	67	55-93	0	
Indeno(1,2,3-cd)pyrene	1069	130	1272	0	84	56-120	0	
Isophorone	1005	3,200	1272	0	79	52-99	0	J
Naphthalene	941.4	130	1272	0	74	46-98	0	
Nitrobenzene	1043	3,200	1272	0	82	53-95	0	J
N-Nitrosodi-n-propylamine	1132	630	1272	0	89	50-104	0	
N-Nitrosodiphenylamine	1094	630	1272	0	86	63-107	0	
Pentachlorophenol	687	630	1272	0	54	34-106	0	
Phenanthrene	1120	130	1272	0	88	66-101	0	
Phenol	1056	630	1272	0	83	44-109	0	
Pyrene	1196	130	1272	104	85.8	60-119	0	
Surr: 2,4,6-Tribromophenol	*2188*	0	*3180*	0	*68.8*	*38-92*	0	
Surr: 2-Fluorobiphenyl	*2201*	0	*3180*	0	*69.2*	*44-107*	0	
Surr: 2-Fluorophenol	*2201*	0	*3180*	0	*69.2*	*37-109*	0	
Surr: 4-Terphenyl-d14	*2328*	0	*3180*	0	*73.2*	*52-123*	0	
Surr: Nitrobenzene-d5	*2163*	0	*3180*	0	*68*	*41-94*	0	
Surr: Phenol-d6	*2354*	0	*3180*	0	*74*	*28-111*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

MSD Sample ID: **20111733-01B MSD** Units: **µg/Kg** Analysis Date: **11/24/2020 01:43 AM**
Client ID: Run ID: **SVMS9_201123A** SeqNo: **6932674** Prep Date: **11/20/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	952.6	630	1270	0	75	53-97	1018	6.62	30	
2,4,5-Trichlorophenol	1029	630	1270	0	81	52-111	1056	2.6	30	
2,4,6-Trichlorophenol	1029	630	1270	0	81	46-105	1069	3.8	30	
2,4-Dichlorophenol	990.7	630	1270	0	78	47-96	1005	1.44	30	
2,4-Dimethylphenol	800.2	630	1270	0	63	49-97	865.1	7.8	30	
2,4-Dinitrophenol	U	13,000	1270	0	0	10-106	0	0	30	S
2,4-Dinitrotoluene	1207	630	1270	0	95	58-110	1438	17.5	30	
2,6-Dinitrotoluene	889.1	630	1270	0	70	59-108	992.3	11	30	
2-Chloronaphthalene	851	130	1270	0	67	56-104	903.3	5.96	30	
2-Chlorophenol	952.6	630	1270	0	75	50-104	1005	5.36	30	
2-Methylnaphthalene	914.5	130	1270	0	72	54-96	992.3	8.17	30	
2-Methylphenol	990.7	630	1270	0	78	49-105	1043	5.16	30	
2-Nitroaniline	1105	630	1270	0	87	54-107	1081	2.16	30	
2-Nitrophenol	723.9	630	1270	0	57	51-94	687	5.24	30	
3&4-Methylphenol	1003	630	1270	0	79	48-105	1056	5.1	30	
3,3´-Dichlorobenzidine	825.6	3,200	1270	0	65	39-99	916	0	30	J
3-Nitroaniline	901.8	630	1270	0	71	17-92	1005	10.8	30	
4,6-Dinitro-2-methylphenol	U	630	1270	0	0	32-103	0	0	30	S
4-Bromophenyl phenyl ether	952.6	630	1270	0	75	60-106	1030	7.86	30	
4-Chloro-3-methylphenol	1029	630	1270	0	81	51-101	1158	11.8	30	
4-Chloroaniline	749.4	1,300	1270	0	59	27-110	801.5	0	30	J
4-Chlorophenyl phenyl ether	990.7	630	1270	0	78	58-106	1043	5.16	30	
4-Nitroaniline	1130	3,200	1270	0	89	21-100	1349	0	30	J
4-Nitrophenol	U	3,200	1270	0	0	29-120	1069	0	30	S
Acenaphthene	901.8	130	1270	0	71	55-101	941.4	4.3	30	
Acenaphthylene	927.2	130	1270	0	73	59-106	992.3	6.79	30	
Acetophenone	927.2	630	1270	0	73	51-100	979.6	5.5	30	
Anthracene	965.3	130	1270	0	76	67-105	1056	8.97	30	
Atrazine	1067	630	1270	0	84	45-125	1170	9.26	30	
Benzaldehyde	U	1,300	1270	0	0	10-120	610.6	0	30	S
Benzo(a)anthracene	1041	130	1270	0	82	68-105	1158	10.6	30	
Benzo(a)pyrene	1130	130	1270	0	89	68-110	1145	1.28	30	
Benzo(b)fluoranthene	1130	130	1270	0	89	65-110	1221	7.73	30	
Benzo(g,h,i)perylene	965.3	130	1270	0	76	60-120	1005	4.04	30	
Benzo(k)fluoranthene	990.7	130	1270	0	78	66-113	1107	11.1	30	
Bis(2-chloroethoxy)methane	876.4	630	1270	0	69	53-96	954.1	8.5	30	
Bis(2-chloroethyl)ether	863.7	630	1270	0	68	47-108	877.8	1.63	30	
Bis(2-chloroisopropyl)ether	978	630	1270	0	77	47-107	1005	2.73	30	
Bis(2-ethylhexyl)phthalate	1232	630	1270	0	97	59-117	1336	8.09	30	
Butyl benzyl phthalate	1054	1,300	1270	0	83	59-106	1158	0	30	J
Caprolactam	1232	1,300	1270	0	97	42-105	1120	0	30	J
Carbazole	1143	630	1270	0	90	67-108	1170	2.36	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **168076** Instrument ID **SVMS9** Method: **SW846 8270D**

Chrysene	939.9	130	1270	0	74	68-108	1056	11.6	30	
Dibenzo(a,h)anthracene	863.7	130	1270	0	68	62-119	928.7	7.26	30	
Dibenzofuran	965.3	630	1270	0	76	60-104	1056	8.97	30	
Diethyl phthalate	1067	630	1270	0	84	62-111	1120	4.82	30	
Dimethyl phthalate	990.7	630	1270	0	78	62-106	1043	5.16	30	
Di-n-butyl phthalate	1130	630	1270	0	89	59-105	1221	7.73	30	
Di-n-octyl phthalate	1334	630	1270	0	105	51-123	1450	8.38	30	
Fluoranthene	1207	130	1270	169	81.7	67-106	1361	12	30	
Fluorene	952.6	130	1270	0	75	59-107	1030	7.86	30	
Hexachlorobenzene	939.9	630	1270	0	74	62-103	966.9	2.83	30	
Hexachlorobutadiene	838.3	630	1270	0	66	51-94	852.4	1.67	30	
Hexachlorocyclopentadiene	U	630	1270	0	0	25-120	241.7	0	30	S
Hexachloroethane	876.4	630	1270	0	69	55-93	852.4	2.78	30	
Indeno(1,2,3-cd)pyrene	1016	130	1270	0	80	56-120	1069	5.04	30	
Isophorone	952.6	3,200	1270	0	75	52-99	1005	0	30	J
Naphthalene	863.7	130	1270	0	68	46-98	941.4	8.62	30	
Nitrobenzene	914.5	3,200	1270	0	72	53-95	1043	0	30	J
N-Nitrosodi-n-propylamine	1003	630	1270	0	79	50-104	1132	12.1	30	
N-Nitrosodiphenylamine	1003	630	1270	0	79	63-107	1094	8.65	30	
Pentachlorophenol	762	630	1270	0	60	34-106	687	10.4	30	
Phenanthrene	990.7	130	1270	0	78	66-101	1120	12.2	30	
Phenol	1003	630	1270	0	79	44-109	1056	5.1	30	
Pyrene	1054	130	1270	104	74.8	60-119	1196	12.6	30	
Surr: 2,4,6-Tribromophenol	*1981*	0	*3175*	0	*62.4*	*38-92*	2188	*9.92*	*40*	
Surr: 2-Fluorobiphenyl	*2108*	0	*3175*	0	*66.4*	*44-107*	2201	*4.29*	*40*	
Surr: 2-Fluorophenol	*2019*	0	*3175*	0	*63.6*	*37-109*	2201	*8.6*	*40*	
Surr: 4-Terphenyl-d14	*2108*	0	*3175*	0	*66.4*	*52-123*	2328	*9.91*	*40*	
Surr: Nitrobenzene-d5	*2007*	0	*3175*	0	*63.2*	*41-94*	2163	*7.48*	*40*	
Surr: Phenol-d6	*2210*	0	*3175*	0	*69.6*	*28-111*	2354	*6.29*	*40*	

The following samples were analyzed in this batch: 20111403-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

MBLK	Sample ID: **MBLK-167952-167952**				Units: **µg/Kg-dry**		Analysis Date: **11/19/2020 01:02 PM**			
Client ID:		Run ID: **VMS8_201119A**			SeqNo: **6916726**		Prep Date: **11/18/2020**		DF: **1**	

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	30								
1,1,2,2-Tetrachloroethane	U	30								
1,1,2-Trichloroethane	U	30								
1,1,2-Trichlorotrifluoroethane	U	30								
1,1-Dichloroethane	U	30								
1,1-Dichloroethene	U	30								
1,2,4-Trichlorobenzene	U	100								
1,2-Dibromo-3-chloropropane	U	100								
1,2-Dibromoethane	U	30								
1,2-Dichlorobenzene	U	30								
1,2-Dichloroethane	U	100								
1,2-Dichloropropane	U	30								
1,3-Dichlorobenzene	U	30								
1,4-Dichlorobenzene	U	30								
2-Butanone	U	200								
2-Hexanone	U	30								
4-Methyl-2-pentanone	U	30								
Acetone	U	100								
Benzene	U	30								
Bromodichloromethane	U	30								
Bromoform	U	30								
Bromomethane	U	100								
Carbon disulfide	U	30								
Carbon tetrachloride	U	30								
Chlorobenzene	U	30								
Chloroethane	U	100								
Chloroform	U	30								
Chloromethane	U	100								
cis-1,2-Dichloroethene	U	30								
cis-1,3-Dichloropropene	U	30								
Cyclohexane	U	100								
Dibromochloromethane	U	30								
Dichlorodifluoromethane	U	100								
Ethylbenzene	U	30								
Isopropylbenzene	U	30								
Methyl acetate	U	250								
Methyl tert-butyl ether	U	30								
Methylcyclohexane	U	30								
Methylene chloride	U	250								
Styrene	U	30								
Tetrachloroethene	U	30								
Toluene	U	30								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

trans-1,2-Dichloroethene	U	30					
trans-1,3-Dichloropropene	U	30					
Trichloroethene	U	30					
Trichlorofluoromethane	U	30					
Vinyl chloride	U	30					
Xylenes, Total	U	90					
Surr: 1,2-Dichloroethane-d4	*1016*	0	*1000*	0	*102*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1077*	0	*1000*	0	*108*	*70-130*	0
Surr: Dibromofluoromethane	*1002*	0	*1000*	0	*100*	*70-130*	0
Surr: Toluene-d8	*1030*	0	*1000*	0	*103*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

LCS	Sample ID: **LCS-167952-167952**				Units: **µg/Kg-dry**		Analysis Date: **11/19/2020 12:13 PM**			
Client ID:		Run ID: **VMS8_201119A**			SeqNo: **6916718**		Prep Date: **11/18/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1046	30	1000	0	105	70-135	0			
1,1,2,2-Tetrachloroethane	1142	30	1000	0	114	55-130	0			
1,1,2-Trichloroethane	1073	30	1000	0	107	60-125	0			
1,1-Dichloroethane	1022	30	1000	0	102	75-125	0			
1,1-Dichloroethene	985.5	30	1000	0	98.6	76-148	0			
1,2,4-Trichlorobenzene	1014	100	1000	0	101	65-130	0			
1,2-Dibromo-3-chloropropane	946.5	100	1000	0	94.6	40-135	0			
1,2-Dibromoethane	1204	30	1000	0	120	80-195	0			
1,2-Dichlorobenzene	1110	30	1000	0	111	75-120	0			
1,2-Dichloroethane	1034	100	1000	0	103	70-135	0			
1,2-Dichloropropane	1059	30	1000	0	106	70-120	0			
1,3-Dichlorobenzene	1100	30	1000	0	110	70-125	0			
1,4-Dichlorobenzene	1100	30	1000	0	110	70-125	0			
2-Butanone	976	200	1000	0	97.6	30-160	0			
2-Hexanone	1091	30	1000	0	109	45-145	0			
4-Methyl-2-pentanone	1638	30	1000	0	164	74-176	0			
Acetone	969	100	1000	0	96.9	20-160	0			
Benzene	1044	30	1000	0	104	75-125	0			
Bromodichloromethane	1032	30	1000	0	103	70-130	0			
Bromoform	936	30	1000	0	93.6	55-135	0			
Bromomethane	758	100	1000	0	75.8	50-170	0			
Carbon disulfide	1050	30	1000	0	105	45-160	0			
Carbon tetrachloride	1004	30	1000	0	100	65-135	0			
Chlorobenzene	1062	30	1000	0	106	75-125	0			
Chloroethane	804	100	1000	0	80.4	40-155	0			
Chloroform	1004	30	1000	0	100	66-140	0			
Chloromethane	789.5	100	1000	0	79	50-144	0			
cis-1,2-Dichloroethene	1039	30	1000	0	104	65-125	0			
cis-1,3-Dichloropropene	1025	30	1000	0	102	70-125	0			
Dibromochloromethane	978.5	30	1000	0	97.8	65-135	0			
Dichlorodifluoromethane	1102	100	1000	0	110	35-135	0			
Ethylbenzene	1218	30	1000	0	122	75-125	0			
Isopropylbenzene	1158	30	1000	0	116	75-130	0			
Methyl tert-butyl ether	1082	30	1000	0	108	75-125	0			
Methylene chloride	918.5	250	1000	0	91.8	55-145	0			
Styrene	1116	30	1000	0	112	80-138	0			
Tetrachloroethene	1121	30	1000	0	112	67-167	0			
Toluene	1092	30	1000	0	109	70-125	0			
trans-1,2-Dichloroethene	1039	30	1000	0	104	65-135	0			
trans-1,3-Dichloropropene	1094	30	1000	0	109	59-129	0			
Trichloroethene	989.5	30	1000	0	99	75-125	0			
Trichlorofluoromethane	768.5	30	1000	0	76.8	25-185	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

Vinyl chloride	951	30	1000	0	95.1	60-125	0
Xylenes, Total	3532	90	3000	0	118	75-125	0
Surr: 1,2-Dichloroethane-d4	*996*	0	*1000*	0	*99.6*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1006*	0	*1000*	0	*101*	*70-130*	0
Surr: Dibromofluoromethane	*1019*	0	*1000*	0	*102*	*70-130*	0
Surr: Toluene-d8	*994.5*	0	*1000*	0	*99.4*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **20111403-09A MS** Units: **µg/Kg-dry** Analysis Date: **11/21/2020 01:00 AM**
Client ID: **2020-BH-09-(13-15) Soil** Run ID: **VMS8_201120B** SeqNo: **6920987** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1699	47	1564	0	109	70-135	0			
1,1,2,2-Tetrachloroethane	1723	47	1564	0	110	55-130	0			
1,1,2-Trichloroethane	1681	47	1564	0	108	60-125	0			
1,1-Dichloroethane	1613	47	1564	0	103	75-125	0			
1,1-Dichloroethene	1722	47	1564	0	110	76-148	0			
1,2,4-Trichlorobenzene	1447	160	1564	0	92.5	65-130	0			
1,2-Dibromo-3-chloropropane	1367	160	1564	0	87.4	40-135	0			
1,2-Dibromoethane	1934	47	1564	0	124	80-195	0			
1,2-Dichlorobenzene	1693	47	1564	0	108	75-120	0			
1,2-Dichloroethane	1687	160	1564	0	108	70-135	0			
1,2-Dichloropropane	1717	47	1564	0	110	70-120	0			
1,3-Dichlorobenzene	1704	47	1564	0	109	70-125	0			
1,4-Dichlorobenzene	1704	47	1564	0	109	70-125	0			
2-Butanone	1569	310	1564	0	100	30-160	0			
2-Hexanone	2073	47	1564	0	133	45-145	0			
4-Methyl-2-pentanone	2443	47	1564	0	156	74-176	0			
Acetone	2961	160	1564	230.2	175	20-160	0			S
Benzene	1718	47	1564	0	110	75-125	0			
Bromodichloromethane	1612	47	1564	0	103	70-130	0			
Bromoform	1437	47	1564	0	91.9	55-135	0			
Bromomethane	1200	160	1564	0	76.8	50-170	0			
Carbon disulfide	1708	47	1564	0	109	45-160	0			
Carbon tetrachloride	1641	47	1564	0	105	65-135	0			
Chlorobenzene	1721	47	1564	0	110	75-125	0			
Chloroethane	208	160	1564	0	13.3	40-155	0			S
Chloroform	1646	47	1564	0	105	66-140	0			
Chloromethane	1328	160	1564	0	84.9	50-144	0			
cis-1,2-Dichloroethene	1703	47	1564	0	109	65-125	0			
cis-1,3-Dichloropropene	1595	47	1564	0	102	70-125	0			
Dibromochloromethane	1485	47	1564	0	95	65-135	0			
Dichlorodifluoromethane	773.4	160	1564	0	49.5	35-135	0			
Ethylbenzene	1895	47	1564	0	121	75-125	0			
Isopropylbenzene	1843	47	1564	0	118	75-130	0			
Methyl tert-butyl ether	1778	47	1564	0	114	75-125	0			
Methylene chloride	958.8	390	1564	0	61.3	55-145	0			
Styrene	1852	47	1564	0	118	80-138	0			
Tetrachloroethene	3047	47	1564	0	195	67-167	0			S
Toluene	1756	47	1564	0	112	70-125	0			
trans-1,2-Dichloroethene	1803	47	1564	0	115	65-135	0			
trans-1,3-Dichloropropene	1656	47	1564	0	106	59-129	0			
Trichloroethene	1674	47	1564	0	107	75-125	0			
Trichlorofluoromethane	1049	47	1564	0	67.1	25-185	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

Vinyl chloride	544.3	47	1564	0	34.8	60-125	0	S
Xylenes, Total	5669	140	4692	0	121	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1573*	0	*1564*	0	*101*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1636*	0	*1564*	0	*105*	*70-130*	0	
Surr: Dibromofluoromethane	*1534*	0	*1564*	0	*98*	*70-130*	0	
Surr: Toluene-d8	*1496*	0	*1564*	0	*95.6*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **20111403-09A MSD** Units: **µg/Kg-dry** Analysis Date: **11/21/2020 01:16 AM**

Client ID: **2020-BH-09-(13-15) Soil** Run ID: **VMS8_201120B** SeqNo: **6920988** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1771	47	1564	0	113	70-135	1699	4.15	30	
1,1,2,2-Tetrachloroethane	1798	47	1564	0	115	55-130	1723	4.26	30	
1,1,2-Trichloroethane	1730	47	1564	0	111	60-125	1681	2.84	30	
1,1-Dichloroethane	1673	47	1564	0	107	75-125	1613	3.67	30	
1,1-Dichloroethene	1731	47	1564	0	111	76-148	1722	0.543	30	
1,2,4-Trichlorobenzene	1538	160	1564	0	98.3	65-130	1447	6.08	30	
1,2-Dibromo-3-chloropropane	1391	160	1564	0	89	40-135	1367	1.76	30	
1,2-Dibromoethane	2022	47	1564	0	129	80-195	1934	4.43	30	
1,2-Dichlorobenzene	1811	47	1564	0	116	75-120	1693	6.74	30	
1,2-Dichloroethane	1706	160	1564	0	109	70-135	1687	1.15	30	
1,2-Dichloropropane	1757	47	1564	0	112	70-120	1717	2.34	30	
1,3-Dichlorobenzene	1796	47	1564	0	115	70-125	1704	5.27	30	
1,4-Dichlorobenzene	1796	47	1564	0	115	70-125	1704	5.27	30	
2-Butanone	1800	310	1564	0	115	30-160	1569	13.7	30	
2-Hexanone	2123	47	1564	0	136	45-145	2073	2.39	30	
4-Methyl-2-pentanone	2499	47	1564	0	160	74-176	2443	2.25	30	
Acetone	3066	160	1564	230.2	181	20-160	2961	3.48	30	S
Benzene	1738	47	1564	0	111	75-125	1718	1.18	30	
Bromodichloromethane	1632	47	1564	0	104	70-130	1612	1.25	30	
Bromoform	1564	47	1564	0	100	55-135	1437	8.5	30	
Bromomethane	1058	160	1564	0	67.7	50-170	1200	12.6	30	
Carbon disulfide	1772	47	1564	0	113	45-160	1708	3.69	30	
Carbon tetrachloride	1670	47	1564	0	107	65-135	1641	1.8	30	
Chlorobenzene	1790	47	1564	0	114	75-125	1721	3.97	30	
Chloroethane	183.8	160	1564	0	11.8	40-155	208	12.4	30	S
Chloroform	1656	47	1564	0	106	66-140	1646	0.615	30	
Chloromethane	1404	160	1564	0	89.8	50-144	1328	5.55	30	
cis-1,2-Dichloroethene	1730	47	1564	0	111	65-125	1703	1.59	30	
cis-1,3-Dichloropropene	1644	47	1564	0	105	70-125	1595	3.04	30	
Dibromochloromethane	1573	47	1564	0	101	65-135	1485	5.73	30	
Dichlorodifluoromethane	833.7	160	1564	0	53.3	35-135	773.4	7.49	30	
Ethylbenzene	1981	47	1564	0	127	75-125	1895	4.44	30	S
Isopropylbenzene	1940	47	1564	0	124	75-130	1843	5.13	30	
Methyl tert-butyl ether	1778	47	1564	0	114	75-125	1778	0	30	
Methylene chloride	1425	390	1564	0	91.1	55-145	958.8	39.1	30	R
Styrene	1911	47	1564	0	122	80-138	1852	3.12	30	
Tetrachloroethene	3177	47	1564	0	203	67-167	3047	4.17	30	S
Toluene	1809	47	1564	0	116	70-125	1756	2.94	30	
trans-1,2-Dichloroethene	1840	47	1564	0	118	65-135	1803	2.06	30	
trans-1,3-Dichloropropene	1708	47	1564	0	109	59-129	1656	3.07	30	
Trichloroethene	1785	47	1564	0	114	75-125	1674	6.42	30	
Trichlorofluoromethane	1086	47	1564	0	69.5	25-185	1049	3.52	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **167952** Instrument ID **VMS8** Method: **SW8260C**

Vinyl chloride	582.6	47	1564	0	37.3	60-125	544.3	6.8	30	S
Xylenes, Total	5878	140	4692	0	125	75-125	5669	3.62	30	S
Surr: 1,2-Dichloroethane-d4	*1606*	0	*1564*	0	*103*	*70-130*	1573	*2.12*	*30*	
Surr: 4-Bromofluorobenzene	*1692*	0	*1564*	0	*108*	*70-130*	1636	*3.38*	*30*	
Surr: Dibromofluoromethane	*1540*	0	*1564*	0	*98.5*	*70-130*	1534	*0.407*	*30*	
Surr: Toluene-d8	*1553*	0	*1564*	0	*99.3*	*70-130*	1496	*3.74*	*30*	

The following samples were analyzed in this batch:

20111403-02A	20111403-03A	20111403-05A
20111403-09A	20111403-10A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **R304384** Instrument ID **VMS8** Method: **SW8260C**

MBLK	Sample ID: **VBLKS1-201124-R304384**			Units: **µg/Kg**		Analysis Date: **11/24/2020 12:47 PM**			
Client ID:	Run ID: **VMS8_201124A**			SeqNo: **6930537**		Prep Date:		DF: **1**	

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	5.0								
1,1,2,2-Tetrachloroethane	U	5.0								
1,1,2-Trichloroethane	U	5.0								
1,1,2-Trichlorotrifluoroethane	U	5.0								
1,1-Dichloroethane	U	5.0								
1,1-Dichloroethene	U	5.0								
1,2,4-Trichlorobenzene	U	5.0								
1,2-Dibromo-3-chloropropane	U	5.0								
1,2-Dibromoethane	U	5.0								
1,2-Dichlorobenzene	U	5.0								
1,2-Dichloroethane	U	5.0								
1,2-Dichloropropane	U	5.0								
1,3-Dichlorobenzene	U	5.0								
1,4-Dichlorobenzene	U	5.0								
2-Butanone	U	10								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	5.0								
Acetone	U	10								
Benzene	U	5.0								
Bromodichloromethane	U	5.0								
Bromoform	U	5.0								
Bromomethane	U	10								
Carbon disulfide	U	5.0								
Carbon tetrachloride	U	5.0								
Chlorobenzene	U	5.0								
Chloroethane	U	5.0								
Chloroform	U	5.0								
Chloromethane	U	10								
cis-1,2-Dichloroethene	U	5.0								
cis-1,3-Dichloropropene	U	5.0								
Cyclohexane	U	10								
Dibromochloromethane	U	5.0								
Dichlorodifluoromethane	U	10								
Ethylbenzene	U	5.0								
Isopropylbenzene	U	5.0								
Methyl acetate	U	10								
Methyl tert-butyl ether	U	5.0								
Methylcyclohexane	U	10								
Methylene chloride	U	10								
Styrene	U	5.0								
Tetrachloroethene	U	5.0								
Toluene	U	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R304384**	Instrument ID **VMS8**			Method: **SW8260C**				
trans-1,2-Dichloroethene	U	5.0						
trans-1,3-Dichloropropene	U	5.0						
Trichloroethene	U	5.0						
Trichlorofluoromethane	U	5.0						
Vinyl chloride	U	5.0						
Xylenes, Total	U	5.0						
Surr: 1,2-Dichloroethane-d4	*18.68*	0	*20*	0	*93.4*	*83-132*	0	
Surr: 4-Bromofluorobenzene	*20.66*	0	*20*	0	*103*	*83-111*	0	
Surr: Dibromofluoromethane	*19.98*	0	*20*	0	*99.9*	*77-125*	0	
Surr: Toluene-d8	*20.59*	0	*20*	0	*103*	*86-108*	0	

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **R304384** Instrument ID **VMS8** Method: **SW8260C**

LCS	Sample ID: **VLCSS1-201124-R304384**				Units: **µg/Kg**		Analysis Date: **11/24/2020 11:58 AM**			
Client ID:		Run ID: **VMS8_201124A**			SeqNo: **6930536**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.82	5.0	20	0	104	73-138	0			
1,1,2,2-Tetrachloroethane	18.98	5.0	20	0	94.9	71-126	0			
1,1,2-Trichloroethane	18.52	5.0	20	0	92.6	77-123	0			
1,1-Dichloroethane	19.39	5.0	20	0	97	63-148	0			
1,1-Dichloroethene	22.35	5.0	20	0	112	67-156	0			
1,2,4-Trichlorobenzene	19.13	5.0	20	0	95.6	70-132	0			
1,2-Dibromo-3-chloropropane	17.93	5.0	20	0	89.6	48-127	0			
1,2-Dibromoethane	19.12	5.0	20	0	95.6	71-144	0			
1,2-Dichlorobenzene	19.21	5.0	20	0	96	77-127	0			
1,2-Dichloroethane	19.28	5.0	20	0	96.4	77-127	0			
1,2-Dichloropropane	22.11	5.0	20	0	111	74-130	0			
1,3-Dichlorobenzene	23.01	5.0	20	0	115	75-133	0			
1,4-Dichlorobenzene	23.01	5.0	20	0	115	74-130	0			
2-Butanone	15.28	10	20	0	76.4	55-132	0			
2-Hexanone	14.76	5.0	20	0	73.8	55-124	0			
4-Methyl-2-pentanone	22.18	5.0	20	0	111	67-159	0			
Acetone	15.94	10	20	0	79.7	31-156	0			
Benzene	21.94	5.0	20	0	110	77-133	0			
Bromodichloromethane	20.08	5.0	20	0	100	69-133	0			
Bromoform	16.04	5.0	20	0	80.2	55-126	0			
Bromomethane	23.48	10	20	0	117	31-174	0			
Carbon disulfide	23.9	5.0	20	0	120	45-160	0			
Carbon tetrachloride	19.8	5.0	20	0	99	69-140	0			
Chlorobenzene	21.55	5.0	20	0	108	76-130	0			
Chloroethane	19.74	5.0	20	0	98.7	53-150	0			
Chloroform	19.65	5.0	20	0	98.2	72-132	0			
Chloromethane	22.26	10	20	0	111	43-150	0			
cis-1,2-Dichloroethene	20.05	5.0	20	0	100	74-134	0			
cis-1,3-Dichloropropene	19.34	5.0	20	0	96.7	62-134	0			
Dibromochloromethane	17.65	5.0	20	0	88.2	57-118	0			
Dichlorodifluoromethane	25.18	10	20	0	126	43-126	0			
Ethylbenzene	20.14	5.0	20	0	101	75-133	0			
Isopropylbenzene	20.49	5.0	20	0	102	74-137	0			
Methyl tert-butyl ether	18.59	5.0	20	0	93	62-136	0			
Methylene chloride	19.13	10	20	0	95.6	55-157	0			
Styrene	22.5	5.0	20	0	112	72-138	0			
Tetrachloroethene	23.46	5.0	20	0	117	70-171	0			
Toluene	23.05	5.0	20	0	115	76-130	0			
trans-1,2-Dichloroethene	22.35	5.0	20	0	112	65-137	0			
trans-1,3-Dichloropropene	20.72	5.0	20	0	104	58-126	0			
Trichloroethene	21.85	5.0	20	0	109	75-135	0			
Trichlorofluoromethane	14.91	5.0	20	0	74.6	62-136	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R304384** Instrument ID **VMS8** Method: **SW8260C**

Vinyl chloride	23.17	5.0	20	0	116	57-143	0
Xylenes, Total	62.9	5.0	60	0	105	75-132	0
Surr: 1,2-Dichloroethane-d4	*17.65*	0	*20*	0	*88.2*	*83-132*	0
Surr: 4-Bromofluorobenzene	*19.74*	0	*20*	0	*98.7*	*83-111*	0
Surr: Dibromofluoromethane	*19.25*	0	*20*	0	*96.2*	*77-125*	0
Surr: Toluene-d8	*20.37*	0	*20*	0	*102*	*86-108*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **R304384** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **20111403-07A MS** Units: **µg/Kg** Analysis Date: **11/24/2020 05:18 PM**
Client ID: **2020-BH-07-(0-1) Soil** Run ID: **VMS8_201124A** SeqNo: **6931216** Prep Date: DF: **0.998**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	13.96	5.0	19.96	0	69.9	73-138	0			S
1,1,2,2-Tetrachloroethane	18.07	5.0	19.96	0	90.6	71-126	0			
1,1,2-Trichloroethane	17.49	5.0	19.96	0	87.6	77-123	0			
1,1-Dichloroethane	14.36	5.0	19.96	0	71.9	63-148	0			
1,1-Dichloroethene	14.91	5.0	19.96	0	74.7	67-156	0			
1,2,4-Trichlorobenzene	12.93	5.0	19.96	0	64.8	70-132	0			S
1,2-Dibromo-3-chloropropane	18.28	5.0	19.96	0	91.6	48-127	0			
1,2-Dibromoethane	16.5	5.0	19.96	0	82.6	71-144	0			
1,2-Dichlorobenzene	15.64	5.0	19.96	0	78.4	77-127	0			
1,2-Dichloroethane	16.32	5.0	19.96	0	81.8	77-127	0			
1,2-Dichloropropane	19.54	5.0	19.96	0	97.9	74-130	0			
1,3-Dichlorobenzene	16.86	5.0	19.96	0	84.4	75-133	0			
1,4-Dichlorobenzene	16.86	5.0	19.96	0	84.4	74-130	0			
2-Butanone	30.58	10	19.96	3.098	138	55-132	0			S
2-Hexanone	28.06	5.0	19.96	0	141	55-124	0			S
4-Methyl-2-pentanone	26.41	5.0	19.96	0	132	67-159	0			
Acetone	50.08	10	19.96	43.41	33.4	31-156	0			
Benzene	15.77	5.0	19.96	0.374	77.1	77-133	0			
Bromodichloromethane	16.69	5.0	19.96	0	83.6	69-133	0			
Bromoform	15.33	5.0	19.96	0	76.8	55-126	0			
Bromomethane	13.83	10	19.96	0	69.3	31-174	0			
Carbon disulfide	15.31	5.0	19.96	3.187	60.7	45-160	0			
Carbon tetrachloride	13.1	5.0	19.96	0	65.6	69-140	0			S
Chlorobenzene	15.96	5.0	19.96	0	79.9	76-130	0			
Chloroethane	12.95	5.0	19.96	0	64.9	53-150	0			
Chloroform	14.79	5.0	19.96	0	74.1	72-132	0			
Chloromethane	14.91	10	19.96	0	74.7	43-150	0			
cis-1,2-Dichloroethene	14.34	5.0	19.96	0	71.9	74-134	0			S
cis-1,3-Dichloropropene	15.89	5.0	19.96	0	79.6	62-134	0			
Dibromochloromethane	15.09	5.0	19.96	0	75.6	57-118	0			
Dichlorodifluoromethane	14.3	10	19.96	0	71.6	43-126	0			
Ethylbenzene	14.01	5.0	19.96	0	70.2	75-133	0			S
Isopropylbenzene	14.59	5.0	19.96	0	73.1	74-137	0			S
Methyl tert-butyl ether	17.91	5.0	19.96	0	89.8	62-136	0			
Methylene chloride	15.45	10	19.96	0	77.4	55-157	0			
Styrene	17.13	5.0	19.96	0	85.8	72-138	0			
Tetrachloroethene	16.99	5.0	19.96	0	85.1	70-171	0			
Toluene	15.89	5.0	19.96	0	79.6	76-130	0			
trans-1,2-Dichloroethene	15.83	5.0	19.96	0	79.3	65-137	0			
trans-1,3-Dichloropropene	16.85	5.0	19.96	0	84.4	58-126	0			
Trichloroethene	14.88	5.0	19.96	0	74.6	75-135	0			S
Trichlorofluoromethane	9.301	5.0	19.96	0	46.6	62-136	0			S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R304384** Instrument ID **VMS8** Method: **SW8260C**

Vinyl chloride	14.74	5.0	19.96	0	73.9	57-143	0
Xylenes, Total	46.01	5.0	59.88	0	76.8	75-132	0
Surr: 1,2-Dichloroethane-d4	*18.75*	0	*19.96*	0	*93.9*	*83-132*	0
Surr: 4-Bromofluorobenzene	*19.78*	0	*19.96*	0	*99.1*	*83-111*	0
Surr: Dibromofluoromethane	*19.64*	0	*19.96*	0	*98.4*	*77-125*	0
Surr: Toluene-d8	*19.83*	0	*19.96*	0	*99.4*	*86-108*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **R304384** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **20111403-07A MSD** Units: **µg/Kg** Analysis Date: **11/24/2020 05:34 PM**
Client ID: **2020-BH-07-(0-1) Soil** Run ID: **VMS8_201124A** SeqNo: **6931217** Prep Date: DF: **0.99**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	18.37	5.0	19.8	0	92.8	73-138	13.96	27.3	30	
1,1,2,2-Tetrachloroethane	20.68	5.0	19.8	0	104	71-126	18.07	13.5	30	
1,1,2-Trichloroethane	18.53	5.0	19.8	0	93.6	77-123	17.49	5.76	30	
1,1-Dichloroethane	18.24	5.0	19.8	0	92.1	63-148	14.36	23.8	30	
1,1-Dichloroethene	20.67	5.0	19.8	0	104	67-156	14.91	32.4	30	R
1,2,4-Trichlorobenzene	14.42	5.0	19.8	0	72.8	70-132	12.93	10.9	30	
1,2-Dibromo-3-chloropropane	20.02	5.0	19.8	0	101	48-127	18.28	9.06	30	
1,2-Dibromoethane	18.4	5.0	19.8	0	93	71-144	16.5	10.9	30	
1,2-Dichlorobenzene	16.65	5.0	19.8	0	84.1	77-127	15.64	6.27	30	
1,2-Dichloroethane	18.51	5.0	19.8	0	93.5	77-127	16.32	12.6	30	
1,2-Dichloropropane	22.33	5.0	19.8	0	113	74-130	19.54	13.3	30	
1,3-Dichlorobenzene	18.81	5.0	19.8	0	95	75-133	16.86	11	30	
1,4-Dichlorobenzene	18.81	5.0	19.8	0	95	74-130	16.86	11	30	
2-Butanone	32.01	9.9	19.8	3.098	146	55-132	30.58	4.56	30	S
2-Hexanone	29.5	5.0	19.8	0	149	55-124	28.06	5	30	S
4-Methyl-2-pentanone	29.21	5.0	19.8	0	148	67-159	26.41	10.1	30	
Acetone	59.39	9.9	19.8	43.41	80.7	31-156	50.08	17	30	
Benzene	19.46	5.0	19.8	0.374	96.4	77-133	15.77	21	30	
Bromodichloromethane	18.86	5.0	19.8	0	95.2	69-133	16.69	12.2	30	
Bromoform	16.79	5.0	19.8	0	84.8	55-126	15.33	9.1	30	
Bromomethane	18.72	9.9	19.8	0	94.6	31-174	13.83	30	30	R
Carbon disulfide	20.71	5.0	19.8	3.187	88.5	45-160	15.31	30	30	
Carbon tetrachloride	17.39	5.0	19.8	0	87.8	69-140	13.1	28.1	30	
Chlorobenzene	18.7	5.0	19.8	0	94.4	76-130	15.96	15.8	30	
Chloroethane	17.5	5.0	19.8	0	88.4	53-150	12.95	29.9	30	
Chloroform	18.13	5.0	19.8	0	91.6	72-132	14.79	20.3	30	
Chloromethane	18.71	9.9	19.8	0	94.5	43-150	14.91	22.6	30	
cis-1,2-Dichloroethene	17.82	5.0	19.8	0	90	74-134	14.34	21.6	30	
cis-1,3-Dichloropropene	17.24	5.0	19.8	0	87	62-134	15.89	8.14	30	
Dibromochloromethane	17.51	5.0	19.8	0	88.4	57-118	15.09	14.9	30	
Dichlorodifluoromethane	20.47	9.9	19.8	0	103	43-126	14.3	35.5	30	R
Ethylbenzene	17.59	5.0	19.8	0	88.8	75-133	14.01	22.7	30	
Isopropylbenzene	17.61	5.0	19.8	0	89	74-137	14.59	18.8	30	
Methyl tert-butyl ether	19.81	5.0	19.8	0	100	62-136	17.91	10.1	30	
Methylene chloride	18.34	9.9	19.8	0	92.6	55-157	15.45	17.1	30	
Styrene	19.77	5.0	19.8	0	99.8	72-138	17.13	14.3	30	
Tetrachloroethene	21.71	5.0	19.8	0	110	70-171	16.99	24.4	30	
Toluene	19.91	5.0	19.8	0	101	76-130	15.89	22.5	30	
trans-1,2-Dichloroethene	20.45	5.0	19.8	0	103	65-137	15.83	25.5	30	
trans-1,3-Dichloropropene	19.6	5.0	19.8	0	99	58-126	16.85	15.1	30	
Trichloroethene	18.75	5.0	19.8	0	94.7	75-135	14.88	23	30	
Trichlorofluoromethane	13.05	5.0	19.8	0	65.9	62-136	9.301	33.5	30	R

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **R304384** Instrument ID **VMS8** Method: **SW8260C**

Vinyl chloride	19.85	5.0	19.8	0	100	57-143	14.74	29.5	30
Xylenes, Total	55.26	5.0	59.4	0	93	75-132	46.01	18.3	30
Surr: 1,2-Dichloroethane-d4	*18.68*	0	*19.8*	0	*94.4*	*83-132*	18.75	*0.38*	*30*
Surr: 4-Bromofluorobenzene	*20.6*	0	*19.8*	0	*104*	*83-111*	19.78	*4.07*	*30*
Surr: Dibromofluoromethane	*19.23*	0	*19.8*	0	*97.1*	*77-125*	19.64	*2.13*	*30*
Surr: Toluene-d8	*19.95*	0	*19.8*	0	*101*	*86-108*	19.83	*0.594*	*30*

The following samples were analyzed in this batch:

20111403-01A	20111403-03A	20111403-04A
20111403-05A	20111403-06A	20111403-07A
20111403-08A	20111403-09A	20111403-10A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111403
Project: Golder (Phase II Eaton Shenandoah 20394143)

QC BATCH REPORT

Batch ID: **R303061** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R303061** Units: **% of sample** Analysis Date: **11/18/2020 02:54 PM**
Client ID: Run ID: **MOIST_201118C** SeqNo: **6914171** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.10								

LCS Sample ID: **LCS-R303061** Units: **% of sample** Analysis Date: **11/18/2020 02:54 PM**
Client ID: Run ID: **MOIST_201118C** SeqNo: **6914170** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	99.99	0.10	100	0	100	98-102	0			

DUP Sample ID: **20111251-27A DUP** Units: **% of sample** Analysis Date: **11/18/2020 02:54 PM**
Client ID: Run ID: **MOIST_201118C** SeqNo: **6914147** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.71	0.10	0	0	0	0-0	11.73	0.171	10	

DUP Sample ID: **20111251-43A DUP** Units: **% of sample** Analysis Date: **11/18/2020 02:54 PM**
Client ID: Run ID: **MOIST_201118C** SeqNo: **6914160** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.54	0.10	0	0	0	0-0	15.52	0.129	10	

The following samples were analyzed in this batch:

20111403-01B	20111403-02B	20111403-03B
20111403-04B	20111403-05B	20111403-06B
20111403-07B	20111403-08B	20111403-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Group, USA

Date: 01-Dec-20

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah 20394143)
WorkOrder: **20111403**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Sample Receipt Checklist

Client Name: **GOLDER-MO** Date/Time Received: **14-Nov-20 11:00**

Work Order: **20111403** Received by: **MJG**

Checklist completed by Matthew Gaylord (eSignature) 16-Nov-20 (Date) Reviewed by: Gary Byar (eSignature) 16-Nov-20 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.0/4.0C	IR1	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	11/16/2020 10:17:40 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Middletown, PA +1 717 944 5541
Spring City, PA +1 610 948 4903
Salt Lake City, UT +1 801 266 7700
South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 50605

ALS Project Manager:

ALS Work Order #: 20111402

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	20394143	Project Name	PHASE II ESA EATON SHENANDOAH	A	Moisture
Work Order		Project Number	20394143	B	SVOC
Company Name	Golder Associates Inc.	Bill To Company	Golder Associates Inc	C	Metals ICPMS
Send Report To	annefaeth-boyd@golder.com	Invoice Attn		D	VOC
Address	13515 Barrett Parkway Drive Suite 260	Address	13515 Barrett Parkway Drive Suite 260	E	
City/State/Zip	Ballwin MO 63021	City/State/Zip	Ballwin MO 63021	F	
Phone	314-984-8800	Phone	314-984-8800	G	
Fax		Fax		H	
e-Mail Address		e-Mail Address		I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	2020-BH-01-(5-7) Soil	11/11/2020	1005	Soil	7	4	X	X	X	X							
2	2020-BH-02-(0-1) Soil	11/11/2020	1403		7												
3	2020-BH-03-(1-3) Soil	11/11/2020	1515		7												
4	2020-BH-04-(9-11) Soil	11/11/2020	1640		7												
5	2020-BH-05(1-3) Soil	11/11/2020	1718		7												
6	2020-BH-06(9-11) Soil	11/12/2020	0830		7												
7	2020-BH-07-(0-1) Soil	11/12/2020	0925		7												
8	2020-BH-08-(3-5) Soil	11/11/2020	1117		7												
9	2020-BH-09-(13-15) Soil	11/11/2020	1210		7												
10	Trip Blank	—	—	—	1												

Sampler(s) Please Print & Sign

Shipment Method: Fedex

Turnaround Time in Business Days (BD): ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other

Results Due Date:

Relinquished by:	Eric Schneider	Date: 11/13/20	Time: 1700	Received by:	
Relinquished by:		Date: 11/13/20	Time: 1700	Received by (Laboratory):	11/14/20 10:00
Logged by (Laboratory):	MT6	Date: 11/16/20	Time: 10:16	Checked by (Laboratory):	GRB

Notes: "Other" Preservative is MeOH

Cooler ID	Cooler Temp
	4.0°C
	RM
	pH 2

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Custody Seal

http://www.alsglobal.com

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424-9263
Phone: 616-399-6070
Attn: Sample Receiving

Company: Golder

Name: Eric Sherwood

Date: 11/13/12

Only one Custody Seal Provided

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: A. Faeth-Boyd
Project Name: Eaton Shenandoah Deact and PH2 IA
Project Number: 20394143
Reviewer: A. Muehlfarth
Validation Date: 12/4/2020

Laboratory: ALS Environmental
SDG #: 20111403
Analytical Method (type and no.): Metals (SW6020B), Mercury (SW7471B)
Matrix: ☐ Air ■ Soil/Sed. ☐ Water ☐ Waste ☐
Sample Names 2020-BH-01-(5-7) Soil, 2020-BH-02-(0-1) Soil, 2020-BH-03-(1-3) Soil, 2020-BH-04-(9-11) Soil, 2020-BH-05-(1-3) Soil, 2020-BH-06-(9-11) Soil, 2020-BH-07-(0-1) Soil, 2020-BH-08-(3-5) Soil, 2020-BH-09-(13-15) Soil

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			11/11/2020 - 11/12/2020
b) Sampling team indicated?	x			EMS
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?	x			
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?		x		
g) Field parameters collected (note types)?		x		
h) Field Calibration within control limits?			x	
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?		x		

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?	x			See Notes
g) Were any matrix problems noted?	x			See Notes

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☒	
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☐	☐	☒	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper analytes included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?				
	☐	☒	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☒	
c) Were lab duplicates analyzed (note original and duplicate samples)?				
	☐	☒	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☒	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, analytes included and concentrations)?	☐	☒	☐	
b) Was the %D within control limits?	☐	☐	☒	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met?	☐	☒	☐	See Notes

Comments/Notes:

Dilutions:

Barium diluted (DF 10) in 2020-BH-08-(3-5) Soil, 2020-BH-07-(0-1) Soil, 2020-BH-06-(9-11) Soil, 2020-BH-03-(1-3) Soil, 2020-BH-02-(0-1) Soil, 2020-BH-01-(5-7) Soil.

MS/MSD qualifications:

20111726-41AMS/20111726-41AMSD: MS/MSD % recovery high for mercury, RPD exceeds limit (35%). MS/MSD performed on unrelated sample, no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Comments/Notes:

20111507-01BMS: MS % recovery low for Barium, Lead.

20111507-01BMSD: MSD % recovery high for Barium, Chromium, Lead.

MS/MSD performed on unrelated sample, no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
None.				

Signature: _____ Ann Muehlfarth _____ Date: 12/4/2020

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: A. Faeth-Boyd
Project Name: Eaton Shenandoah Deact and PH2 IA
Project Number: 20394143
Reviewer: A. Muehlfarth
Validation Date: 12/4/2020

Laboratory: ALS Environmental
SDG #: 20111403
Analytical Method (type and no.): SVOCs (SW846 8270D), VOCs (SW8260C)
Matrix: ☐ Air ■ Soil/Sed. ☐ Water ☐ Waste ☐
Sample Names 2020-BH-01-(5-7) Soil, 2020-BH-02-(0-1) Soil, 2020-BH-03-(1-3) Soil, 2020-BH-04-(9-11) Soil, 2020-BH-05-(1-3) Soil, 2020-BH-06-(9-11) Soil, 2020-BH-07-(0-1) Soil, 2020-BH-08-(3-5) Soil, 2020-BH-09-(13-15) Soil, Trip Blank

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			11/11/2020 - 11/12/2020
b) Sampling team indicated?	x			EMS
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?	x			
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			Trip Blank
g) Field parameters collected (note types)?		x		
h) Field Calibration within control limits?			x	
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?	■			

Note Deficiencies: SVOC analysis for Sample 2020-BH-05-(1-3) had reduced mass due to sample wetness.

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?	x			See Notes
g) Were any matrix problems noted?	x			See Notes

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☒	
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☐	☒	☐	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper compounds included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☒	☐	See Notes

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?				
	☐	☒	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☒	
c) Were lab duplicates analyzed (note original and duplicate samples)?				
	☐	☒	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☒	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☒	☐	
b) Was the %D within control limits?	☐	☐	☒	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met?	☐	☒	☐	See Notes

Surrogate Spikes	YES	NO	NA	COMMENTS
a) Were surrogate recoveries within control limits?	☐	☒	☐	See Notes
b) Were surrogate recoveries not calculated due to dilutions?	☐	☒	☐	

Comments/Notes:

Dilutions:
2020-BH-09-(13-15) Soil: All VOCs diluted, DF 0.731
2020-BH-08-(3-5) Soil: All VOCs diluted, DF 0.693
2020-BH-07-(0-1) Soil: All VOCs diluted, DF 0.813

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Comments/Notes (continued):

(Dilutions continued)

2020-BH-06-(9-11) Soil: All VOCs diluted, DF 0.82

2020-BH-05-(1-3) Soil: All VOCs diluted, DF 0.87

2020-BH-04-(9-11) Soil: All VOCs diluted, DF 0.747

2020-BH-03-(1-3) Soil: All VOCs diluted, DF 0.836

2020-BH-01-(5-7) Soil: All VOCs diluted, DF 0.776

LCS qualifications:

Batch 167928: % recovery high for 2,4-Dimethylphenol, associated with samples -01 through -08. Sample results non-detect, no qualification necessary.

MS/MSD qualifications:

20111360-12A MS: % recovery high for 2,4-Dimethylphenol.

20111360-12A MSD: MSD % recovery high for 2,4-Dimethylphenol; % recovery low for2,4-Dinitrophenol.

MS/MSD performed on unrelated sample, no qualification necessary.

20111733-01B MS: MS % recovery high for 2,4-Dinitrotoluene, 4-Nitroaniline; % recovery low for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, 4-Nitrophenol, Benzaldehyde, Hexachlorocyclopentadiene

0111733-01B MSD: MSD % recovery low for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, 4-Nitrophenol, Benzaldehyde, Hexachlorocyclopentadiene.

MS/MSD performed on unrelated sample, no qualification necessary.

20111403-09A MS: MS % recovery high for Acetone, Tetrachloroethene; % recovery low for Chloroethane, Vinyl chloride.

20111403-09A MSD: MSD % recovery high for Acetone, Ethylbenzene, Tetrachloroethene, Total Xylenes; % recovery low for Chloroethane, Vinyl chloride; RPD exceeds limit (30%) for Methylene chloride.

Associated with sample 2020-BH-09-(13-15) Soil.

20111403-07A MS: MS % recovery high for 2-Butanone, 2-Hexanone; % recovery low for 1,1,1-Trichloroethane, 1,2,4-Trichlorobenzene, Carbon tetrachloride, cis-1,2-Dichloroethene, Ethylbenzene, Isopropylbenzene, Trichloroethene, Trichlorofluoromethane.

20111403-07A MSD: MSD % recovery high for 2-Butanone, 2-Hexanone; RPD exceeds limit (30%) for 1,1-Dichloroethene, Bromomethane, Dichlorodifluoromethane, Trichlorofluoromethane.

Associated with sample 2020-BH-07-(0-1) Soil.

Surrogate qualifications:

2020-BH-01-(5-7) Soil: % recovery low for 4-Terphenyl-d14

2020-BH-03-(1-3) Soil: % recovery low for 4-Terphenyl-d14

2020-BH-09-(13-15) Soil: % recovery low for 4-Terphenyl-d14

The case narrative states that these sample results may be biased low, detects in samples were qualified.

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
2020-BH-09-(13-15) Soil	Chloroethane	0.0018	UJ	MS/MSD recovery outside limits
"	Vinyl chloride	0.00065	UJ	"
2020-BH-01-(5-7) Soil	2-Methylnaphthalene	0.011	J-	Surrogate % recovery low

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason

Signature: Ann Muhlfeith Date: 12/4/2020

25-Nov-2020

Anne Faeth-Boyd
Golder Associates Inc.
13515 Barrett Parkway Drive
Suite 260
Ballwin, MO 63021

Re: **Golder (Phase II Eaton Shenandoah)** Work Order: **20111402**

Dear Anne,

ALS Environmental received 10 samples on 14-Nov-2020 11:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 81.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Gary Byar

Electronically approved by: Gary Byar

Gary Byar
Project Manager

Report of Laboratory Analysis

Certificate No: IA: 403

ALS Group, USA

Date: 25-Nov-20

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Work Order: **20111402**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20111402-01	2020-BH-01-GW	Water		11/12/2020 18:10	11/14/2020 11:00	☐
20111402-02	2020-BH-02-GW	Water		11/13/2020 12:15	11/14/2020 11:00	☐
20111402-03	2020-BH-03-GW	Water		11/12/2020 11:15	11/14/2020 11:00	☐
20111402-04	2020-BH-04-GW	Water		11/12/2020 13:40	11/14/2020 11:00	☐
20111402-05	2020-BH-05-GW	Water		11/13/2020 08:35	11/14/2020 11:00	☐
20111402-06	2020-BH-06-GW	Water		11/12/2020 14:05	11/14/2020 11:00	☐
20111402-07	2020-BH-07-GW	Water		11/13/2020 07:30	11/14/2020 11:00	☐
20111402-08	2020-BH-08-GW	Water		11/13/2020 11:45	11/14/2020 11:00	☐
20111402-09	2020-BH-09-GW	Water		11/12/2020 18:40	11/14/2020 11:00	☐
20111402-10	Trip Blank	Water		11/13/2020	11/14/2020 11:00	☐

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-01-GW
Collection Date: 11/12/2020 06:10 PM

Work Order: 20111402
Lab ID: 20111402-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	**0.00023**		**0.00016**	**0.00020**	**mg/L**	1	11/18/2020 16:51
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.00088**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:38
Barium	**0.41**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:38
Cadmium	**0.00046**	J	**0.00015**	**0.0020**	**mg/L**	1	11/23/2020 19:06
Chromium	U		0.0020	0.0050	mg/L	1	11/21/2020 00:38
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 00:38
Selenium	U		0.00048	0.0050	mg/L	1	11/21/2020 00:38
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:38
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EE**
1,1`-Biphenyl	U		0.00047	0.0056	mg/L	1	11/24/2020 20:05
2,4,5-Trichlorophenol	U		0.00019	0.0056	mg/L	1	11/24/2020 20:05
2,4,6-Trichlorophenol	U		0.00028	0.0056	mg/L	1	11/24/2020 20:05
2,4-Dichlorophenol	U		0.00039	0.0056	mg/L	1	11/24/2020 20:05
2,4-Dimethylphenol	U		0.00040	0.0056	mg/L	1	11/24/2020 20:05
2,4-Dinitrophenol	U		0.0029	0.0056	mg/L	1	11/24/2020 20:05
2,4-Dinitrotoluene	U		0.00047	0.0056	mg/L	1	11/24/2020 20:05
2,6-Dinitrotoluene	U		0.00012	0.0056	mg/L	1	11/24/2020 20:05
2-Chloronaphthalene	U		0.000083	0.0056	mg/L	1	11/24/2020 20:05
2-Chlorophenol	U		0.00026	0.0056	mg/L	1	11/24/2020 20:05
2-Methylnaphthalene	U		0.000072	0.0056	mg/L	1	11/24/2020 20:05
2-Methylphenol	U		0.00028	0.0056	mg/L	1	11/24/2020 20:05
2-Nitroaniline	U		0.00023	0.0056	mg/L	1	11/24/2020 20:05
2-Nitrophenol	U		0.00038	0.0056	mg/L	1	11/24/2020 20:05
3&4-Methylphenol	U		0.00023	0.0056	mg/L	1	11/24/2020 20:05
3,3´-Dimethylbenzidine	U		0.0081	0.022	mg/L	1	11/24/2020 20:05
3-Nitroaniline	U		0.00071	0.0056	mg/L	1	11/24/2020 20:05
4,6-Dinitro-2-methylphenol	U		0.00030	0.0056	mg/L	1	11/24/2020 20:05
4-Bromophenyl phenyl ether	U		0.00037	0.0056	mg/L	1	11/24/2020 20:05
4-Chloro-3-methylphenol	U		0.00029	0.0056	mg/L	1	11/24/2020 20:05
4-Chloroaniline	U		0.00038	0.0056	mg/L	1	11/24/2020 20:05
4-Chlorophenyl phenyl ether	U		0.00034	0.0056	mg/L	1	11/24/2020 20:05
4-Nitroaniline	U		0.00063	0.0056	mg/L	1	11/24/2020 20:05
4-Nitrophenol	U		0.00027	0.0056	mg/L	1	11/24/2020 20:05
Acenaphthene	U		0.000090	0.0056	mg/L	1	11/24/2020 20:05
Acenaphthylene	U		0.000083	0.0056	mg/L	1	11/24/2020 20:05
Acetophenone	U		0.00041	0.0011	mg/L	1	11/24/2020 20:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-01-GW
Collection Date: 11/12/2020 06:10 PM

Work Order: 20111402
Lab ID: 20111402-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	**0.00011**	J	**0.000031**	**0.0056**	**mg/L**	1	11/24/2020 20:05
Atrazine	U		0.00039	0.0011	mg/L	1	11/24/2020 20:05
Benzaldehyde	U		0.00058	0.0011	mg/L	1	11/24/2020 20:05
Benzo(a)anthracene	U		0.00011	0.0056	mg/L	1	11/24/2020 20:05
Benzo(a)pyrene	U		0.000049	0.0056	mg/L	1	11/24/2020 20:05
Benzo(b)fluoranthene	U		0.000057	0.0056	mg/L	1	11/24/2020 20:05
Benzo(g,h,i)perylene	U		0.000099	0.0056	mg/L	1	11/24/2020 20:05
Benzo(k)fluoranthene	U		0.000053	0.0056	mg/L	1	11/24/2020 20:05
Bis(2-chloroethoxy)methane	U		0.00032	0.0056	mg/L	1	11/24/2020 20:05
Bis(2-chloroethyl)ether	U		0.00041	0.0056	mg/L	1	11/24/2020 20:05
Bis(2-chloroisopropyl)ether	U		0.00026	0.0056	mg/L	1	11/24/2020 20:05
Bis(2-ethylhexyl)phthalate	U		0.00044	0.0056	mg/L	1	11/24/2020 20:05
Butyl benzyl phthalate	U		0.00033	0.0056	mg/L	1	11/24/2020 20:05
Caprolactam	U		0.0011	0.011	mg/L	1	11/24/2020 20:05
Carbazole	U		0.00027	0.0056	mg/L	1	11/24/2020 20:05
Chrysene	U		0.000053	0.0056	mg/L	1	11/24/2020 20:05
Dibenzo(a,h)anthracene	U		0.000081	0.0056	mg/L	1	11/24/2020 20:05
Dibenzofuran	U		0.00026	0.0056	mg/L	1	11/24/2020 20:05
Diethyl phthalate	U		0.00019	0.0056	mg/L	1	11/24/2020 20:05
Dimethyl phthalate	U		0.00020	0.0056	mg/L	1	11/24/2020 20:05
Di-n-butyl phthalate	U		0.00023	0.0056	mg/L	1	11/24/2020 20:05
Di-n-octyl phthalate	U		0.00059	0.0056	mg/L	1	11/24/2020 20:05
Fluoranthene	**0.00031**	J	**0.000042**	**0.0056**	**mg/L**	1	11/24/2020 20:05
Fluorene	**0.00024**	J	**0.000057**	**0.0056**	**mg/L**	1	11/24/2020 20:05
Hexachlorobenzene	U		0.00049	0.0056	mg/L	1	11/24/2020 20:05
Hexachlorobutadiene	U		0.00070	0.0056	mg/L	1	11/24/2020 20:05
Hexachlorocyclopentadiene	U		0.0012	0.0056	mg/L	1	11/24/2020 20:05
Hexachloroethane	U		0.00069	0.0056	mg/L	1	11/24/2020 20:05
Indeno(1,2,3-cd)pyrene	U		0.000074	0.0056	mg/L	1	11/24/2020 20:05
Isophorone	U		0.00038	0.0056	mg/L	1	11/24/2020 20:05
Naphthalene	U		0.000074	0.0056	mg/L	1	11/24/2020 20:05
Nitrobenzene	U		0.00029	0.0056	mg/L	1	11/24/2020 20:05
N-Nitrosodi-n-propylamine	U		0.00039	0.0056	mg/L	1	11/24/2020 20:05
N-Nitrosodiphenylamine	U		0.00054	0.0056	mg/L	1	11/24/2020 20:05
Pentachlorophenol	U		0.0011	0.0056	mg/L	1	11/24/2020 20:05
Phenanthrene	**0.00091**	J	**0.000090**	**0.0056**	**mg/L**	1	11/24/2020 20:05
Phenol	U		0.00023	0.0056	mg/L	1	11/24/2020 20:05
Pyrene	**0.00017**	J	**0.000040**	**0.0056**	**mg/L**	1	11/24/2020 20:05
Surr: 2,4,6-Tribromophenol	*63.0*			*27-83*	*%REC*	1	11/24/2020 20:05
Surr: 2-Fluorobiphenyl	*49.4*			*26-79*	*%REC*	1	11/24/2020 20:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-01-GW
Collection Date: 11/12/2020 06:10 PM

Work Order: 20111402
Lab ID: 20111402-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*36.6*			*13-56*	*%REC*	1	11/24/2020 20:05
Surr: 4-Terphenyl-d14	*61.5*			*43-106*	*%REC*	1	11/24/2020 20:05
Surr: Nitrobenzene-d5	*45.7*			*29-80*	*%REC*	1	11/24/2020 20:05
Surr: Phenol-d6	*26.5*			*10-35*	*%REC*	1	11/24/2020 20:05
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:01
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:01
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:01
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:01
1,1-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 17:01
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:01
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:01
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 17:01
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 17:01
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 17:01
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 17:01
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 17:01
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:01
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:01
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 17:01
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 17:01
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 17:01
Acetone	**0.010**		**0.0062**	**0.010**	**mg/L**	1	11/19/2020 17:01
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 17:01
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 17:01
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 17:01
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 17:01
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 17:01
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 17:01
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:01
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:01
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 17:01
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 17:01
cis-1,2-Dichloroethene	U		0.00042	0.0010	mg/L	1	11/19/2020 17:01
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 17:01
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 17:01
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:01
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:01
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 17:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-01-GW
Collection Date: 11/12/2020 06:10 PM

Work Order: 20111402
Lab ID: 20111402-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:01
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 17:01
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 17:01
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 17:01
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 17:01
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:01
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/19/2020 17:01
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:01
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/19/2020 17:01
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 17:01
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/19/2020 17:01
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:01
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/19/2020 17:01
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 17:01
Surr: 1,2-Dichloroethane-d4	*112*			*75-120*	*%REC*	1	11/19/2020 17:01
Surr: 4-Bromofluorobenzene	*91.5*			*80-110*	*%REC*	1	11/19/2020 17:01
Surr: Dibromofluoromethane	*108*			*85-115*	*%REC*	1	11/19/2020 17:01
Surr: Toluene-d8	*99.8*			*85-110*	*%REC*	1	11/19/2020 17:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-02-GW
Collection Date: 11/13/2020 12:15 PM

Work Order: 20111402
Lab ID: 20111402-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	U		0.00016	0.00020	mg/L	1	11/18/2020 16:53
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.0017**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:43
Barium	**0.31**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:43
Cadmium	U		0.00015	0.0020	mg/L	1	11/23/2020 19:17
Chromium	**0.0027**	J	**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:43
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 00:43
Selenium	**0.00083**	J	**0.00048**	**0.0050**	**mg/L**	1	11/21/2020 00:43
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:43
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.00056	0.0067	mg/L	1	11/20/2020 12:54
2,4,5-Trichlorophenol	U		0.00023	0.0067	mg/L	1	11/20/2020 12:54
2,4,6-Trichlorophenol	U		0.00033	0.0067	mg/L	1	11/20/2020 12:54
2,4-Dichlorophenol	U		0.00047	0.0067	mg/L	1	11/20/2020 12:54
2,4-Dimethylphenol	**0.00072**	J	**0.00048**	**0.0067**	**mg/L**	1	11/20/2020 12:54
2,4-Dinitrophenol	U		0.0035	0.0067	mg/L	1	11/20/2020 12:54
2,4-Dinitrotoluene	U		0.00056	0.0067	mg/L	1	11/20/2020 12:54
2,6-Dinitrotoluene	U		0.00015	0.0067	mg/L	1	11/20/2020 12:54
2-Chloronaphthalene	U		0.00010	0.0067	mg/L	1	11/20/2020 12:54
2-Chlorophenol	U		0.00031	0.0067	mg/L	1	11/20/2020 12:54
2-Methylnaphthalene	**0.00016**	J	**0.000087**	**0.0067**	**mg/L**	1	11/20/2020 12:54
2-Methylphenol	U		0.00033	0.0067	mg/L	1	11/20/2020 12:54
2-Nitroaniline	U		0.00028	0.0067	mg/L	1	11/20/2020 12:54
2-Nitrophenol	U		0.00045	0.0067	mg/L	1	11/20/2020 12:54
3&4-Methylphenol	U		0.00028	0.0067	mg/L	1	11/20/2020 12:54
3,3´-Dimethylbenzidine	U		0.0098	0.027	mg/L	1	11/20/2020 12:54
3-Nitroaniline	U		0.00085	0.0067	mg/L	1	11/20/2020 12:54
4,6-Dinitro-2-methylphenol	U		0.00036	0.0067	mg/L	1	11/20/2020 12:54
4-Bromophenyl phenyl ether	U		0.00044	0.0067	mg/L	1	11/20/2020 12:54
4-Chloro-3-methylphenol	U		0.00035	0.0067	mg/L	1	11/20/2020 12:54
4-Chloroaniline	U		0.00045	0.0067	mg/L	1	11/20/2020 12:54
4-Chlorophenyl phenyl ether	U		0.00041	0.0067	mg/L	1	11/20/2020 12:54
4-Nitroaniline	U		0.00076	0.0067	mg/L	1	11/20/2020 12:54
4-Nitrophenol	U		0.00032	0.0067	mg/L	1	11/20/2020 12:54
Acenaphthene	U		0.00011	0.0067	mg/L	1	11/20/2020 12:54
Acenaphthylene	U		0.00010	0.0067	mg/L	1	11/20/2020 12:54
Acetophenone	U		0.00049	0.0013	mg/L	1	11/20/2020 12:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-02-GW
Collection Date: 11/13/2020 12:15 PM

Work Order: 20111402
Lab ID: 20111402-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000037	0.0067	mg/L	1	11/20/2020 12:54
Atrazine	U		0.00047	0.0013	mg/L	1	11/20/2020 12:54
Benzaldehyde	U		0.00069	0.0013	mg/L	1	11/20/2020 12:54
Benzo(a)anthracene	U		0.00013	0.0067	mg/L	1	11/20/2020 12:54
Benzo(a)pyrene	U		0.000059	0.0067	mg/L	1	11/20/2020 12:54
Benzo(b)fluoranthene	U		0.000068	0.0067	mg/L	1	11/20/2020 12:54
Benzo(g,h,i)perylene	U		0.00012	0.0067	mg/L	1	11/20/2020 12:54
Benzo(k)fluoranthene	U		0.000064	0.0067	mg/L	1	11/20/2020 12:54
Bis(2-chloroethoxy)methane	U		0.00039	0.0067	mg/L	1	11/20/2020 12:54
Bis(2-chloroethyl)ether	U		0.00049	0.0067	mg/L	1	11/20/2020 12:54
Bis(2-chloroisopropyl)ether	U		0.00031	0.0067	mg/L	1	11/20/2020 12:54
Bis(2-ethylhexyl)phthalate	U		0.00053	0.0067	mg/L	1	11/20/2020 12:54
Butyl benzyl phthalate	U		0.00040	0.0067	mg/L	1	11/20/2020 12:54
Caprolactam	U		0.0013	0.013	mg/L	1	11/20/2020 12:54
Carbazole	U		0.00032	0.0067	mg/L	1	11/20/2020 12:54
Chrysene	U		0.000064	0.0067	mg/L	1	11/20/2020 12:54
Dibenzo(a,h)anthracene	U		0.000097	0.0067	mg/L	1	11/20/2020 12:54
Dibenzofuran	U		0.00031	0.0067	mg/L	1	11/20/2020 12:54
Diethyl phthalate	**0.0011**	J	**0.00023**	**0.0067**	**mg/L**	1	11/20/2020 12:54
Dimethyl phthalate	U		0.00024	0.0067	mg/L	1	11/20/2020 12:54
Di-n-butyl phthalate	U		0.00028	0.0067	mg/L	1	11/20/2020 12:54
Di-n-octyl phthalate	U		0.00071	0.0067	mg/L	1	11/20/2020 12:54
Fluoranthene	**0.00023**	J	**0.000051**	**0.0067**	**mg/L**	1	11/20/2020 12:54
Fluorene	**0.00015**	J	**0.000068**	**0.0067**	**mg/L**	1	11/20/2020 12:54
Hexachlorobenzene	U		0.00059	0.0067	mg/L	1	11/20/2020 12:54
Hexachlorobutadiene	U		0.00084	0.0067	mg/L	1	11/20/2020 12:54
Hexachlorocyclopentadiene	U		0.0015	0.0067	mg/L	1	11/20/2020 12:54
Hexachloroethane	U		0.00083	0.0067	mg/L	1	11/20/2020 12:54
Indeno(1,2,3-cd)pyrene	U		0.000089	0.0067	mg/L	1	11/20/2020 12:54
Isophorone	U		0.00045	0.0067	mg/L	1	11/20/2020 12:54
Naphthalene	**0.00053**	J	**0.000089**	**0.0067**	**mg/L**	1	11/20/2020 12:54
Nitrobenzene	U		0.00035	0.0067	mg/L	1	11/20/2020 12:54
N-Nitrosodi-n-propylamine	U		0.00047	0.0067	mg/L	1	11/20/2020 12:54
N-Nitrosodiphenylamine	U		0.00065	0.0067	mg/L	1	11/20/2020 12:54
Pentachlorophenol	U		0.0013	0.0067	mg/L	1	11/20/2020 12:54
Phenanthrene	**0.00072**	J	**0.00011**	**0.0067**	**mg/L**	1	11/20/2020 12:54
Phenol	U		0.00028	0.0067	mg/L	1	11/20/2020 12:54
Pyrene	**0.00017**	J	**0.000048**	**0.0067**	**mg/L**	1	11/20/2020 12:54
Surr: 2,4,6-Tribromophenol	*76.2*			*27-83*	*%REC*	1	11/20/2020 12:54
Surr: 2-Fluorobiphenyl	*77.8*			*26-79*	*%REC*	1	11/20/2020 12:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-02-GW
Collection Date: 11/13/2020 12:15 PM

Work Order: 20111402
Lab ID: 20111402-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*38.2*			*13-56*	*%REC*	1	11/20/2020 12:54
Surr: 4-Terphenyl-d14	*87.4*			*43-106*	*%REC*	1	11/20/2020 12:54
Surr: Nitrobenzene-d5	*73.9*			*29-80*	*%REC*	1	11/20/2020 12:54
Surr: Phenol-d6	*29.7*			*10-35*	*%REC*	1	11/20/2020 12:54
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:18
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:18
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:18
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:18
1,1-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 17:18
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:18
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:18
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 17:18
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 17:18
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 17:18
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 17:18
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 17:18
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:18
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:18
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 17:18
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 17:18
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 17:18
Acetone	**0.0062**	J	**0.0062**	**0.010**	**mg/L**	1	11/19/2020 17:18
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 17:18
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 17:18
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 17:18
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 17:18
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 17:18
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 17:18
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:18
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:18
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 17:18
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 17:18
cis-1,2-Dichloroethene	**0.0098**		**0.00042**	**0.0010**	**mg/L**	1	11/19/2020 17:18
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 17:18
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 17:18
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:18
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:18
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 17:18

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-02-GW
Collection Date: 11/13/2020 12:15 PM

Work Order: 20111402
Lab ID: 20111402-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:18
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 17:18
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 17:18
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 17:18
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 17:18
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:18
Tetrachloroethene	**0.00061**	J	**0.00039**	**0.0010**	**mg/L**	1	11/19/2020 17:18
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:18
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/19/2020 17:18
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 17:18
Trichloroethene	**0.0093**		**0.00043**	**0.0010**	**mg/L**	1	11/19/2020 17:18
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:18
Vinyl chloride	**0.0028**		**0.00053**	**0.0010**	**mg/L**	1	11/19/2020 17:18
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 17:18
Surr: 1,2-Dichloroethane-d4	*111*			*75-120*	*%REC*	1	11/19/2020 17:18
Surr: 4-Bromofluorobenzene	*94.4*			*80-110*	*%REC*	1	11/19/2020 17:18
Surr: Dibromofluoromethane	*107*			*85-115*	*%REC*	1	11/19/2020 17:18
Surr: Toluene-d8	*97.5*			*85-110*	*%REC*	1	11/19/2020 17:18

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-03-GW
Collection Date: 11/12/2020 11:15 AM

Work Order: 20111402
Lab ID: 20111402-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	U		0.00016	0.00020	mg/L	1	11/18/2020 17:00
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.00088**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:45
Barium	**0.31**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:45
Cadmium	U		0.00015	0.0020	mg/L	1	11/23/2020 19:19
Chromium	U		0.0020	0.0050	mg/L	1	11/21/2020 00:45
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 00:45
Selenium	U		0.00048	0.0050	mg/L	1	11/21/2020 00:45
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:45
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EE**
1,1`-Biphenyl	U		0.00047	0.0056	mg/L	1	11/24/2020 20:27
2,4,5-Trichlorophenol	U		0.00019	0.0056	mg/L	1	11/24/2020 20:27
2,4,6-Trichlorophenol	U		0.00028	0.0056	mg/L	1	11/24/2020 20:27
2,4-Dichlorophenol	U		0.00039	0.0056	mg/L	1	11/24/2020 20:27
2,4-Dimethylphenol	U		0.00040	0.0056	mg/L	1	11/24/2020 20:27
2,4-Dinitrophenol	U		0.0029	0.0056	mg/L	1	11/24/2020 20:27
2,4-Dinitrotoluene	U		0.00047	0.0056	mg/L	1	11/24/2020 20:27
2,6-Dinitrotoluene	U		0.00012	0.0056	mg/L	1	11/24/2020 20:27
2-Chloronaphthalene	U		0.000083	0.0056	mg/L	1	11/24/2020 20:27
2-Chlorophenol	U		0.00026	0.0056	mg/L	1	11/24/2020 20:27
2-Methylnaphthalene	U		0.000072	0.0056	mg/L	1	11/24/2020 20:27
2-Methylphenol	U		0.00028	0.0056	mg/L	1	11/24/2020 20:27
2-Nitroaniline	U		0.00023	0.0056	mg/L	1	11/24/2020 20:27
2-Nitrophenol	U		0.00038	0.0056	mg/L	1	11/24/2020 20:27
3&4-Methylphenol	U		0.00023	0.0056	mg/L	1	11/24/2020 20:27
3,3´-Dimethylbenzidine	U		0.0081	0.022	mg/L	1	11/24/2020 20:27
3-Nitroaniline	U		0.00071	0.0056	mg/L	1	11/24/2020 20:27
4,6-Dinitro-2-methylphenol	U		0.00030	0.0056	mg/L	1	11/24/2020 20:27
4-Bromophenyl phenyl ether	U		0.00037	0.0056	mg/L	1	11/24/2020 20:27
4-Chloro-3-methylphenol	U		0.00029	0.0056	mg/L	1	11/24/2020 20:27
4-Chloroaniline	U		0.00038	0.0056	mg/L	1	11/24/2020 20:27
4-Chlorophenyl phenyl ether	U		0.00034	0.0056	mg/L	1	11/24/2020 20:27
4-Nitroaniline	U		0.00063	0.0056	mg/L	1	11/24/2020 20:27
4-Nitrophenol	U		0.00027	0.0056	mg/L	1	11/24/2020 20:27
Acenaphthene	U		0.000090	0.0056	mg/L	1	11/24/2020 20:27
Acenaphthylene	U		0.000083	0.0056	mg/L	1	11/24/2020 20:27
Acetophenone	U		0.00041	0.0011	mg/L	1	11/24/2020 20:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-03-GW
Collection Date: 11/12/2020 11:15 AM

Work Order: 20111402
Lab ID: 20111402-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000031	0.0056	mg/L	1	11/24/2020 20:27
Atrazine	U		0.00039	0.0011	mg/L	1	11/24/2020 20:27
Benzaldehyde	U		0.00058	0.0011	mg/L	1	11/24/2020 20:27
Benzo(a)anthracene	U		0.00011	0.0056	mg/L	1	11/24/2020 20:27
Benzo(a)pyrene	U		0.000049	0.0056	mg/L	1	11/24/2020 20:27
Benzo(b)fluoranthene	U		0.000057	0.0056	mg/L	1	11/24/2020 20:27
Benzo(g,h,i)perylene	U		0.000099	0.0056	mg/L	1	11/24/2020 20:27
Benzo(k)fluoranthene	U		0.000053	0.0056	mg/L	1	11/24/2020 20:27
Bis(2-chloroethoxy)methane	U		0.00032	0.0056	mg/L	1	11/24/2020 20:27
Bis(2-chloroethyl)ether	U		0.00041	0.0056	mg/L	1	11/24/2020 20:27
Bis(2-chloroisopropyl)ether	U		0.00026	0.0056	mg/L	1	11/24/2020 20:27
Bis(2-ethylhexyl)phthalate	U		0.00044	0.0056	mg/L	1	11/24/2020 20:27
Butyl benzyl phthalate	U		0.00033	0.0056	mg/L	1	11/24/2020 20:27
Caprolactam	U		0.0011	0.011	mg/L	1	11/24/2020 20:27
Carbazole	U		0.00027	0.0056	mg/L	1	11/24/2020 20:27
Chrysene	U		0.000053	0.0056	mg/L	1	11/24/2020 20:27
Dibenzo(a,h)anthracene	U		0.000081	0.0056	mg/L	1	11/24/2020 20:27
Dibenzofuran	U		0.00026	0.0056	mg/L	1	11/24/2020 20:27
Diethyl phthalate	U		0.00019	0.0056	mg/L	1	11/24/2020 20:27
Dimethyl phthalate	U		0.00020	0.0056	mg/L	1	11/24/2020 20:27
Di-n-butyl phthalate	U		0.00023	0.0056	mg/L	1	11/24/2020 20:27
Di-n-octyl phthalate	U		0.00059	0.0056	mg/L	1	11/24/2020 20:27
Fluoranthene	U		0.000042	0.0056	mg/L	1	11/24/2020 20:27
Fluorene	U		0.000057	0.0056	mg/L	1	11/24/2020 20:27
Hexachlorobenzene	U		0.00049	0.0056	mg/L	1	11/24/2020 20:27
Hexachlorobutadiene	U		0.00070	0.0056	mg/L	1	11/24/2020 20:27
Hexachlorocyclopentadiene	U		0.0012	0.0056	mg/L	1	11/24/2020 20:27
Hexachloroethane	U		0.00069	0.0056	mg/L	1	11/24/2020 20:27
Indeno(1,2,3-cd)pyrene	U		0.000074	0.0056	mg/L	1	11/24/2020 20:27
Isophorone	U		0.00038	0.0056	mg/L	1	11/24/2020 20:27
Naphthalene	U		0.000074	0.0056	mg/L	1	11/24/2020 20:27
Nitrobenzene	U		0.00029	0.0056	mg/L	1	11/24/2020 20:27
N-Nitrosodi-n-propylamine	U		0.00039	0.0056	mg/L	1	11/24/2020 20:27
N-Nitrosodiphenylamine	U		0.00054	0.0056	mg/L	1	11/24/2020 20:27
Pentachlorophenol	U		0.0011	0.0056	mg/L	1	11/24/2020 20:27
Phenanthrene	U		0.000090	0.0056	mg/L	1	11/24/2020 20:27
Phenol	U		0.00023	0.0056	mg/L	1	11/24/2020 20:27
Pyrene	U		0.000040	0.0056	mg/L	1	11/24/2020 20:27
Surr: 2,4,6-Tribromophenol	*65.2*			*27-83*	*%REC*	1	11/24/2020 20:27
Surr: 2-Fluorobiphenyl	*55.0*			*26-79*	*%REC*	1	11/24/2020 20:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-03-GW
Collection Date: 11/12/2020 11:15 AM

Work Order: 20111402
Lab ID: 20111402-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*38.7*			*13-56*	*%REC*	1	11/24/2020 20:27
Surr: 4-Terphenyl-d14	*55.4*			*43-106*	*%REC*	1	11/24/2020 20:27
Surr: Nitrobenzene-d5	*52.1*			*29-80*	*%REC*	1	11/24/2020 20:27
Surr: Phenol-d6	*27.1*			*10-35*	*%REC*	1	11/24/2020 20:27
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:34
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:34
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:34
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:34
1,1-Dichloroethane	**0.0015**		**0.00044**	**0.0010**	**mg/L**	1	11/19/2020 17:34
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:34
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:34
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 17:34
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 17:34
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 17:34
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 17:34
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 17:34
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:34
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:34
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 17:34
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 17:34
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 17:34
Acetone	U		0.0062	0.010	mg/L	1	11/19/2020 17:34
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 17:34
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 17:34
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 17:34
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 17:34
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 17:34
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 17:34
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:34
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:34
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 17:34
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 17:34
cis-1,2-Dichloroethene	**0.0084**		**0.00042**	**0.0010**	**mg/L**	1	11/19/2020 17:34
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 17:34
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 17:34
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:34
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:34
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 17:34

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-03-GW
Collection Date: 11/12/2020 11:15 AM

Work Order: 20111402
Lab ID: 20111402-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:34
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 17:34
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 17:34
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 17:34
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 17:34
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:34
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/19/2020 17:34
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:34
trans-1,2-Dichloroethene	**0.00093**	J	**0.00048**	**0.0010**	**mg/L**	1	11/19/2020 17:34
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 17:34
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/19/2020 17:34
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:34
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/19/2020 17:34
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 17:34
Surr: 1,2-Dichloroethane-d4	*111*			*75-120*	*%REC*	1	11/19/2020 17:34
Surr: 4-Bromofluorobenzene	*92.6*			*80-110*	*%REC*	1	11/19/2020 17:34
Surr: Dibromofluoromethane	*108*			*85-115*	*%REC*	1	11/19/2020 17:34
Surr: Toluene-d8	*98.7*			*85-110*	*%REC*	1	11/19/2020 17:34

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-04-GW
Collection Date: 11/12/2020 01:40 PM

Work Order: 20111402
Lab ID: 20111402-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	U		0.00016	0.00020	mg/L	1	11/18/2020 17:02
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.00087**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:47
Barium	**0.11**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:47
Cadmium	U		0.00015	0.0020	mg/L	1	11/23/2020 19:20
Chromium	**0.0053**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:47
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 00:47
Selenium	U		0.00048	0.0050	mg/L	1	11/21/2020 00:47
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:47
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EE**
1,1`-Biphenyl	U		0.00047	0.0056	mg/L	1	11/24/2020 20:48
2,4,5-Trichlorophenol	U		0.00019	0.0056	mg/L	1	11/24/2020 20:48
2,4,6-Trichlorophenol	U		0.00028	0.0056	mg/L	1	11/24/2020 20:48
2,4-Dichlorophenol	U		0.00039	0.0056	mg/L	1	11/24/2020 20:48
2,4-Dimethylphenol	U		0.00040	0.0056	mg/L	1	11/24/2020 20:48
2,4-Dinitrophenol	U		0.0029	0.0056	mg/L	1	11/24/2020 20:48
2,4-Dinitrotoluene	U		0.00047	0.0056	mg/L	1	11/24/2020 20:48
2,6-Dinitrotoluene	U		0.00012	0.0056	mg/L	1	11/24/2020 20:48
2-Chloronaphthalene	U		0.000083	0.0056	mg/L	1	11/24/2020 20:48
2-Chlorophenol	U		0.00026	0.0056	mg/L	1	11/24/2020 20:48
2-Methylnaphthalene	U		0.000072	0.0056	mg/L	1	11/24/2020 20:48
2-Methylphenol	U		0.00028	0.0056	mg/L	1	11/24/2020 20:48
2-Nitroaniline	U		0.00023	0.0056	mg/L	1	11/24/2020 20:48
2-Nitrophenol	U		0.00038	0.0056	mg/L	1	11/24/2020 20:48
3&4-Methylphenol	U		0.00023	0.0056	mg/L	1	11/24/2020 20:48
3,3´-Dimethylbenzidine	U		0.0081	0.022	mg/L	1	11/24/2020 20:48
3-Nitroaniline	U		0.00071	0.0056	mg/L	1	11/24/2020 20:48
4,6-Dinitro-2-methylphenol	U		0.00030	0.0056	mg/L	1	11/24/2020 20:48
4-Bromophenyl phenyl ether	U		0.00037	0.0056	mg/L	1	11/24/2020 20:48
4-Chloro-3-methylphenol	U		0.00029	0.0056	mg/L	1	11/24/2020 20:48
4-Chloroaniline	U		0.00038	0.0056	mg/L	1	11/24/2020 20:48
4-Chlorophenyl phenyl ether	U		0.00034	0.0056	mg/L	1	11/24/2020 20:48
4-Nitroaniline	U		0.00063	0.0056	mg/L	1	11/24/2020 20:48
4-Nitrophenol	U		0.00027	0.0056	mg/L	1	11/24/2020 20:48
Acenaphthene	U		0.000090	0.0056	mg/L	1	11/24/2020 20:48
Acenaphthylene	U		0.000083	0.0056	mg/L	1	11/24/2020 20:48
Acetophenone	U		0.00041	0.0011	mg/L	1	11/24/2020 20:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-04-GW
Collection Date: 11/12/2020 01:40 PM

Work Order: 20111402
Lab ID: 20111402-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000031	0.0056	mg/L	1	11/24/2020 20:48
Atrazine	U		0.00039	0.0011	mg/L	1	11/24/2020 20:48
Benzaldehyde	U		0.00058	0.0011	mg/L	1	11/24/2020 20:48
Benzo(a)anthracene	U		0.00011	0.0056	mg/L	1	11/24/2020 20:48
Benzo(a)pyrene	U		0.000049	0.0056	mg/L	1	11/24/2020 20:48
Benzo(b)fluoranthene	U		0.000057	0.0056	mg/L	1	11/24/2020 20:48
Benzo(g,h,i)perylene	U		0.000099	0.0056	mg/L	1	11/24/2020 20:48
Benzo(k)fluoranthene	U		0.000053	0.0056	mg/L	1	11/24/2020 20:48
Bis(2-chloroethoxy)methane	U		0.00032	0.0056	mg/L	1	11/24/2020 20:48
Bis(2-chloroethyl)ether	U		0.00041	0.0056	mg/L	1	11/24/2020 20:48
Bis(2-chloroisopropyl)ether	U		0.00026	0.0056	mg/L	1	11/24/2020 20:48
Bis(2-ethylhexyl)phthalate	U		0.00044	0.0056	mg/L	1	11/24/2020 20:48
Butyl benzyl phthalate	U		0.00033	0.0056	mg/L	1	11/24/2020 20:48
Caprolactam	U		0.0011	0.011	mg/L	1	11/24/2020 20:48
Carbazole	U		0.00027	0.0056	mg/L	1	11/24/2020 20:48
Chrysene	U		0.000053	0.0056	mg/L	1	11/24/2020 20:48
Dibenzo(a,h)anthracene	U		0.000081	0.0056	mg/L	1	11/24/2020 20:48
Dibenzofuran	U		0.00026	0.0056	mg/L	1	11/24/2020 20:48
Diethyl phthalate	U		0.00019	0.0056	mg/L	1	11/24/2020 20:48
Dimethyl phthalate	U		0.00020	0.0056	mg/L	1	11/24/2020 20:48
Di-n-butyl phthalate	U		0.00023	0.0056	mg/L	1	11/24/2020 20:48
Di-n-octyl phthalate	U		0.00059	0.0056	mg/L	1	11/24/2020 20:48
Fluoranthene	U		0.000042	0.0056	mg/L	1	11/24/2020 20:48
Fluorene	U		0.000057	0.0056	mg/L	1	11/24/2020 20:48
Hexachlorobenzene	U		0.00049	0.0056	mg/L	1	11/24/2020 20:48
Hexachlorobutadiene	U		0.00070	0.0056	mg/L	1	11/24/2020 20:48
Hexachlorocyclopentadiene	U		0.0012	0.0056	mg/L	1	11/24/2020 20:48
Hexachloroethane	U		0.00069	0.0056	mg/L	1	11/24/2020 20:48
Indeno(1,2,3-cd)pyrene	U		0.000074	0.0056	mg/L	1	11/24/2020 20:48
Isophorone	U		0.00038	0.0056	mg/L	1	11/24/2020 20:48
Naphthalene	U		0.000074	0.0056	mg/L	1	11/24/2020 20:48
Nitrobenzene	U		0.00029	0.0056	mg/L	1	11/24/2020 20:48
N-Nitrosodi-n-propylamine	U		0.00039	0.0056	mg/L	1	11/24/2020 20:48
N-Nitrosodiphenylamine	U		0.00054	0.0056	mg/L	1	11/24/2020 20:48
Pentachlorophenol	U		0.0011	0.0056	mg/L	1	11/24/2020 20:48
Phenanthrene	U		0.000090	0.0056	mg/L	1	11/24/2020 20:48
Phenol	U		0.00023	0.0056	mg/L	1	11/24/2020 20:48
Pyrene	U		0.000040	0.0056	mg/L	1	11/24/2020 20:48
Surr: 2,4,6-Tribromophenol	*65.3*			*27-83*	*%REC*	1	11/24/2020 20:48
Surr: 2-Fluorobiphenyl	*58.6*			*26-79*	*%REC*	1	11/24/2020 20:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-04-GW
Collection Date: 11/12/2020 01:40 PM

Work Order: 20111402
Lab ID: 20111402-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*36.2*			*13-56*	*%REC*	1	11/24/2020 20:48
Surr: 4-Terphenyl-d14	*59.3*			*43-106*	*%REC*	1	11/24/2020 20:48
Surr: Nitrobenzene-d5	*53.3*			*29-80*	*%REC*	1	11/24/2020 20:48
Surr: Phenol-d6	*26.3*			*10-35*	*%REC*	1	11/24/2020 20:48
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:51
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:51
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 17:51
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:51
1,1-Dichloroethane	**0.0039**		**0.00044**	**0.0010**	**mg/L**	1	11/19/2020 17:51
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:51
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:51
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 17:51
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 17:51
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 17:51
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 17:51
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 17:51
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:51
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:51
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 17:51
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 17:51
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 17:51
Acetone	**0.0068**	J	**0.0062**	**0.010**	**mg/L**	1	11/19/2020 17:51
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 17:51
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 17:51
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 17:51
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 17:51
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 17:51
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 17:51
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 17:51
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:51
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 17:51
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 17:51
cis-1,2-Dichloroethene	**0.0055**		**0.00042**	**0.0010**	**mg/L**	1	11/19/2020 17:51
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 17:51
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 17:51
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 17:51
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 17:51
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 17:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-04-GW
Collection Date: 11/12/2020 01:40 PM

Work Order: 20111402
Lab ID: 20111402-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 17:51
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 17:51
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 17:51
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 17:51
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 17:51
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 17:51
Tetrachloroethene	**0.0070**		**0.00039**	**0.0010**	**mg/L**	1	11/19/2020 17:51
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 17:51
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/19/2020 17:51
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 17:51
Trichloroethene	**0.0091**		**0.00043**	**0.0010**	**mg/L**	1	11/19/2020 17:51
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 17:51
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/19/2020 17:51
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 17:51
Surr: 1,2-Dichloroethane-d4	*112*			*75-120*	*%REC*	1	11/19/2020 17:51
Surr: 4-Bromofluorobenzene	*95.2*			*80-110*	*%REC*	1	11/19/2020 17:51
Surr: Dibromofluoromethane	*109*			*85-115*	*%REC*	1	11/19/2020 17:51
Surr: Toluene-d8	*102*			*85-110*	*%REC*	1	11/19/2020 17:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-05-GW
Collection Date: 11/13/2020 08:35 AM

Work Order: 20111402
Lab ID: 20111402-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	U		0.00016	0.00020	mg/L	1	11/18/2020 17:03
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.00077**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:49
Barium	**0.15**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:49
Cadmium	U		0.00015	0.0020	mg/L	1	11/23/2020 19:22
Chromium	**0.0028**	J	**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:49
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 00:49
Selenium	U		0.00048	0.0050	mg/L	1	11/21/2020 00:49
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:49
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.00084	0.010	mg/L	1	11/20/2020 13:16
2,4,5-Trichlorophenol	U		0.00034	0.010	mg/L	1	11/20/2020 13:16
2,4,6-Trichlorophenol	U		0.00050	0.010	mg/L	1	11/20/2020 13:16
2,4-Dichlorophenol	U		0.00070	0.010	mg/L	1	11/20/2020 13:16
2,4-Dimethylphenol	U		0.00072	0.010	mg/L	1	11/20/2020 13:16
2,4-Dinitrophenol	U		0.0052	0.010	mg/L	1	11/20/2020 13:16
2,4-Dinitrotoluene	U		0.00084	0.010	mg/L	1	11/20/2020 13:16
2,6-Dinitrotoluene	U		0.00022	0.010	mg/L	1	11/20/2020 13:16
2-Chloronaphthalene	U		0.00015	0.010	mg/L	1	11/20/2020 13:16
2-Chlorophenol	U		0.00046	0.010	mg/L	1	11/20/2020 13:16
2-Methylnaphthalene	U		0.00013	0.010	mg/L	1	11/20/2020 13:16
2-Methylphenol	U		0.00050	0.010	mg/L	1	11/20/2020 13:16
2-Nitroaniline	U		0.00042	0.010	mg/L	1	11/20/2020 13:16
2-Nitrophenol	U		0.00068	0.010	mg/L	1	11/20/2020 13:16
3&4-Methylphenol	U		0.00042	0.010	mg/L	1	11/20/2020 13:16
3,3´-Dimethylbenzidine	U		0.015	0.040	mg/L	1	11/20/2020 13:16
3-Nitroaniline	U		0.0013	0.010	mg/L	1	11/20/2020 13:16
4,6-Dinitro-2-methylphenol	U		0.00054	0.010	mg/L	1	11/20/2020 13:16
4-Bromophenyl phenyl ether	U		0.00066	0.010	mg/L	1	11/20/2020 13:16
4-Chloro-3-methylphenol	U		0.00052	0.010	mg/L	1	11/20/2020 13:16
4-Chloroaniline	U		0.00068	0.010	mg/L	1	11/20/2020 13:16
4-Chlorophenyl phenyl ether	U		0.00062	0.010	mg/L	1	11/20/2020 13:16
4-Nitroaniline	U		0.0011	0.010	mg/L	1	11/20/2020 13:16
4-Nitrophenol	U		0.00048	0.010	mg/L	1	11/20/2020 13:16
Acenaphthene	U		0.00016	0.010	mg/L	1	11/20/2020 13:16
Acenaphthylene	U		0.00015	0.010	mg/L	1	11/20/2020 13:16
Acetophenone	U		0.00074	0.0020	mg/L	1	11/20/2020 13:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-05-GW
Collection Date: 11/13/2020 08:35 AM

Work Order: 20111402
Lab ID: 20111402-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000056	0.010	mg/L	1	11/20/2020 13:16
Atrazine	U		0.00070	0.0020	mg/L	1	11/20/2020 13:16
Benzaldehyde	U		0.0010	0.0020	mg/L	1	11/20/2020 13:16
Benzo(a)anthracene	U		0.00020	0.010	mg/L	1	11/20/2020 13:16
Benzo(a)pyrene	U		0.000088	0.010	mg/L	1	11/20/2020 13:16
Benzo(b)fluoranthene	U		0.00010	0.010	mg/L	1	11/20/2020 13:16
Benzo(g,h,i)perylene	U		0.00018	0.010	mg/L	1	11/20/2020 13:16
Benzo(k)fluoranthene	U		0.000096	0.010	mg/L	1	11/20/2020 13:16
Bis(2-chloroethoxy)methane	U		0.00058	0.010	mg/L	1	11/20/2020 13:16
Bis(2-chloroethyl)ether	U		0.00074	0.010	mg/L	1	11/20/2020 13:16
Bis(2-chloroisopropyl)ether	U		0.00046	0.010	mg/L	1	11/20/2020 13:16
Bis(2-ethylhexyl)phthalate	U		0.00080	0.010	mg/L	1	11/20/2020 13:16
Butyl benzyl phthalate	U		0.00060	0.010	mg/L	1	11/20/2020 13:16
Caprolactam	**0.0026**	J	**0.0019**	**0.020**	**mg/L**	1	11/20/2020 13:16
Carbazole	U		0.00048	0.010	mg/L	1	11/20/2020 13:16
Chrysene	U		0.000096	0.010	mg/L	1	11/20/2020 13:16
Dibenzo(a,h)anthracene	U		0.00015	0.010	mg/L	1	11/20/2020 13:16
Dibenzofuran	U		0.00046	0.010	mg/L	1	11/20/2020 13:16
Diethyl phthalate	U		0.00034	0.010	mg/L	1	11/20/2020 13:16
Dimethyl phthalate	U		0.00036	0.010	mg/L	1	11/20/2020 13:16
Di-n-butyl phthalate	U		0.00042	0.010	mg/L	1	11/20/2020 13:16
Di-n-octyl phthalate	U		0.0011	0.010	mg/L	1	11/20/2020 13:16
Fluoranthene	U		0.000076	0.010	mg/L	1	11/20/2020 13:16
Fluorene	U		0.00010	0.010	mg/L	1	11/20/2020 13:16
Hexachlorobenzene	U		0.00088	0.010	mg/L	1	11/20/2020 13:16
Hexachlorobutadiene	U		0.0013	0.010	mg/L	1	11/20/2020 13:16
Hexachlorocyclopentadiene	U		0.0022	0.010	mg/L	1	11/20/2020 13:16
Hexachloroethane	U		0.0012	0.010	mg/L	1	11/20/2020 13:16
Indeno(1,2,3-cd)pyrene	U		0.00013	0.010	mg/L	1	11/20/2020 13:16
Isophorone	U		0.00068	0.010	mg/L	1	11/20/2020 13:16
Naphthalene	U		0.00013	0.010	mg/L	1	11/20/2020 13:16
Nitrobenzene	U		0.00052	0.010	mg/L	1	11/20/2020 13:16
N-Nitrosodi-n-propylamine	U		0.00070	0.010	mg/L	1	11/20/2020 13:16
N-Nitrosodiphenylamine	U		0.00098	0.010	mg/L	1	11/20/2020 13:16
Pentachlorophenol	U		0.0019	0.010	mg/L	1	11/20/2020 13:16
Phenanthrene	U		0.00016	0.010	mg/L	1	11/20/2020 13:16
Phenol	U		0.00042	0.010	mg/L	1	11/20/2020 13:16
Pyrene	U		0.000072	0.010	mg/L	1	11/20/2020 13:16
Surr: 2,4,6-Tribromophenol	*71.7*			*27-83*	*%REC*	1	11/20/2020 13:16
Surr: 2-Fluorobiphenyl	*53.5*			*26-79*	*%REC*	1	11/20/2020 13:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-05-GW
Collection Date: 11/13/2020 08:35 AM

Work Order: 20111402
Lab ID: 20111402-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*39.4*			*13-56*	*%REC*	1	11/20/2020 13:16
Surr: 4-Terphenyl-d14	*72.9*			*43-106*	*%REC*	1	11/20/2020 13:16
Surr: Nitrobenzene-d5	*48.5*			*29-80*	*%REC*	1	11/20/2020 13:16
Surr: Phenol-d6	*28.9*			*10-35*	*%REC*	1	11/20/2020 13:16
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 18:08
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 18:08
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 18:08
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 18:08
1,1-Dichloroethane	**0.0075**		**0.00044**	**0.0010**	**mg/L**	1	11/19/2020 18:08
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 18:08
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 18:08
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 18:08
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 18:08
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 18:08
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 18:08
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 18:08
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 18:08
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 18:08
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 18:08
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 18:08
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 18:08
Acetone	U		0.0062	0.010	mg/L	1	11/19/2020 18:08
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 18:08
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 18:08
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 18:08
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 18:08
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 18:08
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 18:08
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 18:08
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 18:08
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 18:08
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 18:08
cis-1,2-Dichloroethene	U		0.00042	0.0010	mg/L	1	11/19/2020 18:08
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 18:08
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 18:08
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 18:08
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 18:08
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 18:08

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-05-GW
Collection Date: 11/13/2020 08:35 AM

Work Order: 20111402
Lab ID: 20111402-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 18:08
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 18:08
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 18:08
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 18:08
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 18:08
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 18:08
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/19/2020 18:08
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 18:08
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/19/2020 18:08
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 18:08
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/19/2020 18:08
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 18:08
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/19/2020 18:08
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 18:08
Surr: 1,2-Dichloroethane-d4	*115*			*75-120*	*%REC*	1	11/19/2020 18:08
Surr: 4-Bromofluorobenzene	*93.8*			*80-110*	*%REC*	1	11/19/2020 18:08
Surr: Dibromofluoromethane	*110*			*85-115*	*%REC*	1	11/19/2020 18:08
Surr: Toluene-d8	*99.6*			*85-110*	*%REC*	1	11/19/2020 18:08

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-06-GW
Collection Date: 11/12/2020 02:05 PM

Work Order: 20111402
Lab ID: 20111402-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	**0.00020**		**0.00016**	**0.00020**	**mg/L**	1	11/18/2020 17:05
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.0082**		**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:51
Barium	**0.40**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:51
Cadmium	**0.00022**	J	**0.00015**	**0.0020**	**mg/L**	1	11/23/2020 19:27
Chromium	U		0.0020	0.0050	mg/L	1	11/21/2020 00:51
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 00:51
Selenium	U		0.00048	0.0050	mg/L	1	11/21/2020 00:51
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:51
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EE**
1,1`-Biphenyl	U		0.00047	0.0056	mg/L	1	11/24/2020 21:10
2,4,5-Trichlorophenol	U		0.00019	0.0056	mg/L	1	11/24/2020 21:10
2,4,6-Trichlorophenol	U		0.00028	0.0056	mg/L	1	11/24/2020 21:10
2,4-Dichlorophenol	U		0.00039	0.0056	mg/L	1	11/24/2020 21:10
2,4-Dimethylphenol	U		0.00040	0.0056	mg/L	1	11/24/2020 21:10
2,4-Dinitrophenol	U		0.0029	0.0056	mg/L	1	11/24/2020 21:10
2,4-Dinitrotoluene	U		0.00047	0.0056	mg/L	1	11/24/2020 21:10
2,6-Dinitrotoluene	U		0.00012	0.0056	mg/L	1	11/24/2020 21:10
2-Chloronaphthalene	U		0.000083	0.0056	mg/L	1	11/24/2020 21:10
2-Chlorophenol	U		0.00026	0.0056	mg/L	1	11/24/2020 21:10
2-Methylnaphthalene	U		0.000072	0.0056	mg/L	1	11/24/2020 21:10
2-Methylphenol	U		0.00028	0.0056	mg/L	1	11/24/2020 21:10
2-Nitroaniline	U		0.00023	0.0056	mg/L	1	11/24/2020 21:10
2-Nitrophenol	U		0.00038	0.0056	mg/L	1	11/24/2020 21:10
3&4-Methylphenol	U		0.00023	0.0056	mg/L	1	11/24/2020 21:10
3,3´-Dimethylbenzidine	U		0.0081	0.022	mg/L	1	11/24/2020 21:10
3-Nitroaniline	U		0.00071	0.0056	mg/L	1	11/24/2020 21:10
4,6-Dinitro-2-methylphenol	U		0.00030	0.0056	mg/L	1	11/24/2020 21:10
4-Bromophenyl phenyl ether	U		0.00037	0.0056	mg/L	1	11/24/2020 21:10
4-Chloro-3-methylphenol	U		0.00029	0.0056	mg/L	1	11/24/2020 21:10
4-Chloroaniline	U		0.00038	0.0056	mg/L	1	11/24/2020 21:10
4-Chlorophenyl phenyl ether	U		0.00034	0.0056	mg/L	1	11/24/2020 21:10
4-Nitroaniline	U		0.00063	0.0056	mg/L	1	11/24/2020 21:10
4-Nitrophenol	U		0.00027	0.0056	mg/L	1	11/24/2020 21:10
Acenaphthene	U		0.000090	0.0056	mg/L	1	11/24/2020 21:10
Acenaphthylene	U		0.000083	0.0056	mg/L	1	11/24/2020 21:10
Acetophenone	U		0.00041	0.0011	mg/L	1	11/24/2020 21:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-06-GW
Collection Date: 11/12/2020 02:05 PM

Work Order: 20111402
Lab ID: 20111402-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000031	0.0056	mg/L	1	11/24/2020 21:10
Atrazine	U		0.00039	0.0011	mg/L	1	11/24/2020 21:10
Benzaldehyde	U		0.00058	0.0011	mg/L	1	11/24/2020 21:10
Benzo(a)anthracene	U		0.00011	0.0056	mg/L	1	11/24/2020 21:10
Benzo(a)pyrene	U		0.000049	0.0056	mg/L	1	11/24/2020 21:10
Benzo(b)fluoranthene	U		0.000057	0.0056	mg/L	1	11/24/2020 21:10
Benzo(g,h,i)perylene	U		0.000099	0.0056	mg/L	1	11/24/2020 21:10
Benzo(k)fluoranthene	U		0.000053	0.0056	mg/L	1	11/24/2020 21:10
Bis(2-chloroethoxy)methane	U		0.00032	0.0056	mg/L	1	11/24/2020 21:10
Bis(2-chloroethyl)ether	U		0.00041	0.0056	mg/L	1	11/24/2020 21:10
Bis(2-chloroisopropyl)ether	U		0.00026	0.0056	mg/L	1	11/24/2020 21:10
Bis(2-ethylhexyl)phthalate	U		0.00044	0.0056	mg/L	1	11/24/2020 21:10
Butyl benzyl phthalate	U		0.00033	0.0056	mg/L	1	11/24/2020 21:10
Caprolactam	U		0.0011	0.011	mg/L	1	11/24/2020 21:10
Carbazole	U		0.00027	0.0056	mg/L	1	11/24/2020 21:10
Chrysene	U		0.000053	0.0056	mg/L	1	11/24/2020 21:10
Dibenzo(a,h)anthracene	U		0.000081	0.0056	mg/L	1	11/24/2020 21:10
Dibenzofuran	U		0.00026	0.0056	mg/L	1	11/24/2020 21:10
Diethyl phthalate	U		0.00019	0.0056	mg/L	1	11/24/2020 21:10
Dimethyl phthalate	U		0.00020	0.0056	mg/L	1	11/24/2020 21:10
Di-n-butyl phthalate	U		0.00023	0.0056	mg/L	1	11/24/2020 21:10
Di-n-octyl phthalate	U		0.00059	0.0056	mg/L	1	11/24/2020 21:10
Fluoranthene	U		0.000042	0.0056	mg/L	1	11/24/2020 21:10
Fluorene	U		0.000057	0.0056	mg/L	1	11/24/2020 21:10
Hexachlorobenzene	U		0.00049	0.0056	mg/L	1	11/24/2020 21:10
Hexachlorobutadiene	U		0.00070	0.0056	mg/L	1	11/24/2020 21:10
Hexachlorocyclopentadiene	U		0.0012	0.0056	mg/L	1	11/24/2020 21:10
Hexachloroethane	U		0.00069	0.0056	mg/L	1	11/24/2020 21:10
Indeno(1,2,3-cd)pyrene	U		0.000074	0.0056	mg/L	1	11/24/2020 21:10
Isophorone	U		0.00038	0.0056	mg/L	1	11/24/2020 21:10
Naphthalene	U		0.000074	0.0056	mg/L	1	11/24/2020 21:10
Nitrobenzene	U		0.00029	0.0056	mg/L	1	11/24/2020 21:10
N-Nitrosodi-n-propylamine	U		0.00039	0.0056	mg/L	1	11/24/2020 21:10
N-Nitrosodiphenylamine	U		0.00054	0.0056	mg/L	1	11/24/2020 21:10
Pentachlorophenol	U		0.0011	0.0056	mg/L	1	11/24/2020 21:10
Phenanthrene	U		0.000090	0.0056	mg/L	1	11/24/2020 21:10
Phenol	U		0.00023	0.0056	mg/L	1	11/24/2020 21:10
Pyrene	U		0.000040	0.0056	mg/L	1	11/24/2020 21:10
Surr: 2,4,6-Tribromophenol	*70.8*			*27-83*	*%REC*	1	11/24/2020 21:10
Surr: 2-Fluorobiphenyl	*58.3*			*26-79*	*%REC*	1	11/24/2020 21:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-06-GW
Collection Date: 11/12/2020 02:05 PM

Work Order: 20111402
Lab ID: 20111402-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*45.2*			*13-56*	*%REC*	1	11/24/2020 21:10
Surr: 4-Terphenyl-d14	*65.3*			*43-106*	*%REC*	1	11/24/2020 21:10
Surr: Nitrobenzene-d5	*56.9*			*29-80*	*%REC*	1	11/24/2020 21:10
Surr: Phenol-d6	*31.5*			*10-35*	*%REC*	1	11/24/2020 21:10
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 18:24
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 18:24
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 18:24
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 18:24
1,1-Dichloroethane	**0.00097**	J	**0.00044**	**0.0010**	**mg/L**	1	11/19/2020 18:24
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 18:24
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 18:24
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 18:24
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 18:24
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 18:24
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 18:24
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 18:24
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 18:24
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 18:24
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 18:24
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 18:24
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 18:24
Acetone	U		0.0062	0.010	mg/L	1	11/19/2020 18:24
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 18:24
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 18:24
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 18:24
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 18:24
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 18:24
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 18:24
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 18:24
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 18:24
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 18:24
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 18:24
cis-1,2-Dichloroethene	U		0.00042	0.0010	mg/L	1	11/19/2020 18:24
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 18:24
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 18:24
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 18:24
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 18:24
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 18:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-06-GW
Collection Date: 11/12/2020 02:05 PM

Work Order: 20111402
Lab ID: 20111402-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 18:24
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 18:24
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 18:24
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 18:24
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 18:24
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 18:24
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/19/2020 18:24
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 18:24
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/19/2020 18:24
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 18:24
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/19/2020 18:24
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 18:24
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/19/2020 18:24
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 18:24
Surr: 1,2-Dichloroethane-d4	*113*			*75-120*	*%REC*	1	11/19/2020 18:24
Surr: 4-Bromofluorobenzene	*94.0*			*80-110*	*%REC*	1	11/19/2020 18:24
Surr: Dibromofluoromethane	*108*			*85-115*	*%REC*	1	11/19/2020 18:24
Surr: Toluene-d8	*99.0*			*85-110*	*%REC*	1	11/19/2020 18:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-07-GW
Collection Date: 11/13/2020 07:30 AM

Work Order: 20111402
Lab ID: 20111402-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	U		0.00016	0.00020	mg/L	1	11/18/2020 17:07
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.0011**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:53
Barium	**0.37**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:53
Cadmium	**0.00022**	J	**0.00015**	**0.0020**	**mg/L**	1	11/23/2020 19:29
Chromium	U		0.0020	0.0050	mg/L	1	11/21/2020 00:53
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 00:53
Selenium	U		0.00048	0.0050	mg/L	1	11/21/2020 00:53
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:53
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.00047	0.0056	mg/L	1	11/20/2020 13:37
2,4,5-Trichlorophenol	U		0.00019	0.0056	mg/L	1	11/20/2020 13:37
2,4,6-Trichlorophenol	U		0.00028	0.0056	mg/L	1	11/20/2020 13:37
2,4-Dichlorophenol	U		0.00039	0.0056	mg/L	1	11/20/2020 13:37
2,4-Dimethylphenol	U		0.00040	0.0056	mg/L	1	11/20/2020 13:37
2,4-Dinitrophenol	U		0.0029	0.0056	mg/L	1	11/20/2020 13:37
2,4-Dinitrotoluene	U		0.00047	0.0056	mg/L	1	11/20/2020 13:37
2,6-Dinitrotoluene	U		0.00012	0.0056	mg/L	1	11/20/2020 13:37
2-Chloronaphthalene	U		0.000083	0.0056	mg/L	1	11/20/2020 13:37
2-Chlorophenol	U		0.00026	0.0056	mg/L	1	11/20/2020 13:37
2-Methylnaphthalene	U		0.000072	0.0056	mg/L	1	11/20/2020 13:37
2-Methylphenol	U		0.00028	0.0056	mg/L	1	11/20/2020 13:37
2-Nitroaniline	U		0.00023	0.0056	mg/L	1	11/20/2020 13:37
2-Nitrophenol	U		0.00038	0.0056	mg/L	1	11/20/2020 13:37
3&4-Methylphenol	U		0.00023	0.0056	mg/L	1	11/20/2020 13:37
3,3´-Dimethylbenzidine	U		0.0081	0.022	mg/L	1	11/20/2020 13:37
3-Nitroaniline	U		0.00071	0.0056	mg/L	1	11/20/2020 13:37
4,6-Dinitro-2-methylphenol	U		0.00030	0.0056	mg/L	1	11/20/2020 13:37
4-Bromophenyl phenyl ether	U		0.00037	0.0056	mg/L	1	11/20/2020 13:37
4-Chloro-3-methylphenol	U		0.00029	0.0056	mg/L	1	11/20/2020 13:37
4-Chloroaniline	U		0.00038	0.0056	mg/L	1	11/20/2020 13:37
4-Chlorophenyl phenyl ether	U		0.00034	0.0056	mg/L	1	11/20/2020 13:37
4-Nitroaniline	U		0.00063	0.0056	mg/L	1	11/20/2020 13:37
4-Nitrophenol	U		0.00027	0.0056	mg/L	1	11/20/2020 13:37
Acenaphthene	U		0.000090	0.0056	mg/L	1	11/20/2020 13:37
Acenaphthylene	U		0.000083	0.0056	mg/L	1	11/20/2020 13:37
Acetophenone	U		0.00041	0.0011	mg/L	1	11/20/2020 13:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-07-GW
Collection Date: 11/13/2020 07:30 AM

Work Order: 20111402
Lab ID: 20111402-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000031	0.0056	mg/L	1	11/20/2020 13:37
Atrazine	U		0.00039	0.0011	mg/L	1	11/20/2020 13:37
Benzaldehyde	U		0.00058	0.0011	mg/L	1	11/20/2020 13:37
Benzo(a)anthracene	U		0.00011	0.0056	mg/L	1	11/20/2020 13:37
Benzo(a)pyrene	U		0.000049	0.0056	mg/L	1	11/20/2020 13:37
Benzo(b)fluoranthene	U		0.000057	0.0056	mg/L	1	11/20/2020 13:37
Benzo(g,h,i)perylene	U		0.000099	0.0056	mg/L	1	11/20/2020 13:37
Benzo(k)fluoranthene	U		0.000053	0.0056	mg/L	1	11/20/2020 13:37
Bis(2-chloroethoxy)methane	U		0.00032	0.0056	mg/L	1	11/20/2020 13:37
Bis(2-chloroethyl)ether	U		0.00041	0.0056	mg/L	1	11/20/2020 13:37
Bis(2-chloroisopropyl)ether	U		0.00026	0.0056	mg/L	1	11/20/2020 13:37
Bis(2-ethylhexyl)phthalate	U		0.00044	0.0056	mg/L	1	11/20/2020 13:37
Butyl benzyl phthalate	U		0.00033	0.0056	mg/L	1	11/20/2020 13:37
Caprolactam	U		0.0011	0.011	mg/L	1	11/20/2020 13:37
Carbazole	U		0.00027	0.0056	mg/L	1	11/20/2020 13:37
Chrysene	U		0.000053	0.0056	mg/L	1	11/20/2020 13:37
Dibenzo(a,h)anthracene	U		0.000081	0.0056	mg/L	1	11/20/2020 13:37
Dibenzofuran	U		0.00026	0.0056	mg/L	1	11/20/2020 13:37
Diethyl phthalate	U		0.00019	0.0056	mg/L	1	11/20/2020 13:37
Dimethyl phthalate	U		0.00020	0.0056	mg/L	1	11/20/2020 13:37
Di-n-butyl phthalate	U		0.00023	0.0056	mg/L	1	11/20/2020 13:37
Di-n-octyl phthalate	U		0.00059	0.0056	mg/L	1	11/20/2020 13:37
Fluoranthene	U		0.000042	0.0056	mg/L	1	11/20/2020 13:37
Fluorene	U		0.000057	0.0056	mg/L	1	11/20/2020 13:37
Hexachlorobenzene	U		0.00049	0.0056	mg/L	1	11/20/2020 13:37
Hexachlorobutadiene	U		0.00070	0.0056	mg/L	1	11/20/2020 13:37
Hexachlorocyclopentadiene	U		0.0012	0.0056	mg/L	1	11/20/2020 13:37
Hexachloroethane	U		0.00069	0.0056	mg/L	1	11/20/2020 13:37
Indeno(1,2,3-cd)pyrene	U		0.000074	0.0056	mg/L	1	11/20/2020 13:37
Isophorone	U		0.00038	0.0056	mg/L	1	11/20/2020 13:37
Naphthalene	U		0.000074	0.0056	mg/L	1	11/20/2020 13:37
Nitrobenzene	U		0.00029	0.0056	mg/L	1	11/20/2020 13:37
N-Nitrosodi-n-propylamine	U		0.00039	0.0056	mg/L	1	11/20/2020 13:37
N-Nitrosodiphenylamine	U		0.00054	0.0056	mg/L	1	11/20/2020 13:37
Pentachlorophenol	U		0.0011	0.0056	mg/L	1	11/20/2020 13:37
Phenanthrene	U		0.000090	0.0056	mg/L	1	11/20/2020 13:37
Phenol	U		0.00023	0.0056	mg/L	1	11/20/2020 13:37
Pyrene	U		0.000040	0.0056	mg/L	1	11/20/2020 13:37
Surr: 2,4,6-Tribromophenol	*69.3*			*27-83*	*%REC*	1	11/20/2020 13:37
Surr: 2-Fluorobiphenyl	*56.7*			*26-79*	*%REC*	1	11/20/2020 13:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-07-GW
Collection Date: 11/13/2020 07:30 AM

Work Order: 20111402
Lab ID: 20111402-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*37.2*			*13-56*	*%REC*	1	11/20/2020 13:37
Surr: 4-Terphenyl-d14	*75.8*			*43-106*	*%REC*	1	11/20/2020 13:37
Surr: Nitrobenzene-d5	*46.5*			*29-80*	*%REC*	1	11/20/2020 13:37
Surr: Phenol-d6	*22.0*			*10-35*	*%REC*	1	11/20/2020 13:37
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 18:40
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 18:40
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 18:40
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 18:40
1,1-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 18:40
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 18:40
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 18:40
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 18:40
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 18:40
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 18:40
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 18:40
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 18:40
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 18:40
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 18:40
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 18:40
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 18:40
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 18:40
Acetone	U		0.0062	0.010	mg/L	1	11/19/2020 18:40
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 18:40
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 18:40
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 18:40
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 18:40
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 18:40
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 18:40
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 18:40
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 18:40
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 18:40
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 18:40
cis-1,2-Dichloroethene	U		0.00042	0.0010	mg/L	1	11/19/2020 18:40
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 18:40
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 18:40
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 18:40
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 18:40
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 18:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-07-GW
Collection Date: 11/13/2020 07:30 AM

Work Order: 20111402
Lab ID: 20111402-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 18:40
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 18:40
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 18:40
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 18:40
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 18:40
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 18:40
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/19/2020 18:40
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 18:40
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/19/2020 18:40
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 18:40
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/19/2020 18:40
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 18:40
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/19/2020 18:40
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 18:40
Surr: 1,2-Dichloroethane-d4	*115*			*75-120*	*%REC*	1	11/19/2020 18:40
Surr: 4-Bromofluorobenzene	*94.7*			*80-110*	*%REC*	1	11/19/2020 18:40
Surr: Dibromofluoromethane	*109*			*85-115*	*%REC*	1	11/19/2020 18:40
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	11/19/2020 18:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-08-GW
Collection Date: 11/13/2020 11:45 AM

Work Order: 20111402
Lab ID: 20111402-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	U		0.00016	0.00020	mg/L	1	11/18/2020 17:09
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.0024**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 00:54
Barium	**0.40**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:54
Cadmium	**0.00029**	J	**0.00015**	**0.0020**	**mg/L**	1	11/23/2020 19:30
Chromium	**0.0035**	J	**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 00:54
Lead	**0.0016**	J	**0.00072**	**0.0050**	**mg/L**	1	11/21/2020 00:54
Selenium	**0.00089**	J	**0.00048**	**0.0050**	**mg/L**	1	11/21/2020 00:54
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 00:54
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EEW**
1,1`-Biphenyl	U		0.00047	0.0056	mg/L	1	11/20/2020 13:58
2,4,5-Trichlorophenol	U		0.00019	0.0056	mg/L	1	11/20/2020 13:58
2,4,6-Trichlorophenol	U		0.00028	0.0056	mg/L	1	11/20/2020 13:58
2,4-Dichlorophenol	U		0.00039	0.0056	mg/L	1	11/20/2020 13:58
2,4-Dimethylphenol	U		0.00040	0.0056	mg/L	1	11/20/2020 13:58
2,4-Dinitrophenol	U		0.0029	0.0056	mg/L	1	11/20/2020 13:58
2,4-Dinitrotoluene	U		0.00047	0.0056	mg/L	1	11/20/2020 13:58
2,6-Dinitrotoluene	U		0.00012	0.0056	mg/L	1	11/20/2020 13:58
2-Chloronaphthalene	U		0.000083	0.0056	mg/L	1	11/20/2020 13:58
2-Chlorophenol	U		0.00026	0.0056	mg/L	1	11/20/2020 13:58
2-Methylnaphthalene	**0.00012**	J	**0.000072**	**0.0056**	**mg/L**	1	11/20/2020 13:58
2-Methylphenol	U		0.00028	0.0056	mg/L	1	11/20/2020 13:58
2-Nitroaniline	U		0.00023	0.0056	mg/L	1	11/20/2020 13:58
2-Nitrophenol	U		0.00038	0.0056	mg/L	1	11/20/2020 13:58
3&4-Methylphenol	U		0.00023	0.0056	mg/L	1	11/20/2020 13:58
3,3´-Dimethylbenzidine	U		0.0081	0.022	mg/L	1	11/20/2020 13:58
3-Nitroaniline	U		0.00071	0.0056	mg/L	1	11/20/2020 13:58
4,6-Dinitro-2-methylphenol	U		0.00030	0.0056	mg/L	1	11/20/2020 13:58
4-Bromophenyl phenyl ether	U		0.00037	0.0056	mg/L	1	11/20/2020 13:58
4-Chloro-3-methylphenol	U		0.00029	0.0056	mg/L	1	11/20/2020 13:58
4-Chloroaniline	U		0.00038	0.0056	mg/L	1	11/20/2020 13:58
4-Chlorophenyl phenyl ether	U		0.00034	0.0056	mg/L	1	11/20/2020 13:58
4-Nitroaniline	U		0.00063	0.0056	mg/L	1	11/20/2020 13:58
4-Nitrophenol	U		0.00027	0.0056	mg/L	1	11/20/2020 13:58
Acenaphthene	U		0.000090	0.0056	mg/L	1	11/20/2020 13:58
Acenaphthylene	U		0.000083	0.0056	mg/L	1	11/20/2020 13:58
Acetophenone	U		0.00041	0.0011	mg/L	1	11/20/2020 13:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-08-GW
Collection Date: 11/13/2020 11:45 AM

Work Order: 20111402
Lab ID: 20111402-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000031	0.0056	mg/L	1	11/20/2020 13:58
Atrazine	U		0.00039	0.0011	mg/L	1	11/20/2020 13:58
Benzaldehyde	U		0.00058	0.0011	mg/L	1	11/20/2020 13:58
Benzo(a)anthracene	U		0.00011	0.0056	mg/L	1	11/20/2020 13:58
Benzo(a)pyrene	U		0.000049	0.0056	mg/L	1	11/20/2020 13:58
Benzo(b)fluoranthene	U		0.000057	0.0056	mg/L	1	11/20/2020 13:58
Benzo(g,h,i)perylene	U		0.000099	0.0056	mg/L	1	11/20/2020 13:58
Benzo(k)fluoranthene	U		0.000053	0.0056	mg/L	1	11/20/2020 13:58
Bis(2-chloroethoxy)methane	U		0.00032	0.0056	mg/L	1	11/20/2020 13:58
Bis(2-chloroethyl)ether	U		0.00041	0.0056	mg/L	1	11/20/2020 13:58
Bis(2-chloroisopropyl)ether	U		0.00026	0.0056	mg/L	1	11/20/2020 13:58
Bis(2-ethylhexyl)phthalate	U		0.00044	0.0056	mg/L	1	11/20/2020 13:58
Butyl benzyl phthalate	U		0.00033	0.0056	mg/L	1	11/20/2020 13:58
Caprolactam	U		0.0011	0.011	mg/L	1	11/20/2020 13:58
Carbazole	U		0.00027	0.0056	mg/L	1	11/20/2020 13:58
Chrysene	U		0.000053	0.0056	mg/L	1	11/20/2020 13:58
Dibenzo(a,h)anthracene	U		0.000081	0.0056	mg/L	1	11/20/2020 13:58
Dibenzofuran	U		0.00026	0.0056	mg/L	1	11/20/2020 13:58
Diethyl phthalate	**0.00059**	J	**0.00019**	**0.0056**	**mg/L**	1	11/20/2020 13:58
Dimethyl phthalate	U		0.00020	0.0056	mg/L	1	11/20/2020 13:58
Di-n-butyl phthalate	U		0.00023	0.0056	mg/L	1	11/20/2020 13:58
Di-n-octyl phthalate	U		0.00059	0.0056	mg/L	1	11/20/2020 13:58
Fluoranthene	**0.00030**	J	**0.000042**	**0.0056**	**mg/L**	1	11/20/2020 13:58
Fluorene	**0.00012**	J	**0.000057**	**0.0056**	**mg/L**	1	11/20/2020 13:58
Hexachlorobenzene	U		0.00049	0.0056	mg/L	1	11/20/2020 13:58
Hexachlorobutadiene	U		0.00070	0.0056	mg/L	1	11/20/2020 13:58
Hexachlorocyclopentadiene	U		0.0012	0.0056	mg/L	1	11/20/2020 13:58
Hexachloroethane	U		0.00069	0.0056	mg/L	1	11/20/2020 13:58
Indeno(1,2,3-cd)pyrene	U		0.000074	0.0056	mg/L	1	11/20/2020 13:58
Isophorone	U		0.00038	0.0056	mg/L	1	11/20/2020 13:58
Naphthalene	**0.00037**	J	**0.000074**	**0.0056**	**mg/L**	1	11/20/2020 13:58
Nitrobenzene	U		0.00029	0.0056	mg/L	1	11/20/2020 13:58
N-Nitrosodi-n-propylamine	U		0.00039	0.0056	mg/L	1	11/20/2020 13:58
N-Nitrosodiphenylamine	U		0.00054	0.0056	mg/L	1	11/20/2020 13:58
Pentachlorophenol	U		0.0011	0.0056	mg/L	1	11/20/2020 13:58
Phenanthrene	**0.00070**	J	**0.000090**	**0.0056**	**mg/L**	1	11/20/2020 13:58
Phenol	U		0.00023	0.0056	mg/L	1	11/20/2020 13:58
Pyrene	**0.00021**	J	**0.000040**	**0.0056**	**mg/L**	1	11/20/2020 13:58
Surr: 2,4,6-Tribromophenol	*83.1*	S		*27-83*	*%REC*	1	11/20/2020 13:58
Surr: 2-Fluorobiphenyl	*64.4*			*26-79*	*%REC*	1	11/20/2020 13:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-08-GW
Collection Date: 11/13/2020 11:45 AM

Work Order: 20111402
Lab ID: 20111402-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*43.2*			*13-56*	*%REC*	1	11/20/2020 13:58
Surr: 4-Terphenyl-d14	*76.9*			*43-106*	*%REC*	1	11/20/2020 13:58
Surr: Nitrobenzene-d5	*62.5*			*29-80*	*%REC*	1	11/20/2020 13:58
Surr: Phenol-d6	*28.4*			*10-35*	*%REC*	1	11/20/2020 13:58
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **SJB**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/20/2020 20:48
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/20/2020 20:48
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/20/2020 20:48
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/20/2020 20:48
1,1-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/20/2020 20:48
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/20/2020 20:48
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/20/2020 20:48
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/20/2020 20:48
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/20/2020 20:48
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/20/2020 20:48
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/20/2020 20:48
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/20/2020 20:48
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/20/2020 20:48
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/20/2020 20:48
2-Butanone	**0.00087**	J	**0.00052**	**0.0050**	**mg/L**	1	11/20/2020 20:48
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/20/2020 20:48
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/20/2020 20:48
Acetone	U		0.0062	0.010	mg/L	1	11/20/2020 20:48
Benzene	U		0.00046	0.0010	mg/L	1	11/20/2020 20:48
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/20/2020 20:48
Bromoform	U		0.00056	0.0010	mg/L	1	11/20/2020 20:48
Bromomethane	U		0.00090	0.0010	mg/L	1	11/20/2020 20:48
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/20/2020 20:48
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/20/2020 20:48
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/20/2020 20:48
Chloroethane	U		0.00068	0.0010	mg/L	1	11/20/2020 20:48
Chloroform	U		0.00046	0.0010	mg/L	1	11/20/2020 20:48
Chloromethane	U		0.00083	0.0010	mg/L	1	11/20/2020 20:48
cis-1,2-Dichloroethene	U		0.00042	0.0010	mg/L	1	11/20/2020 20:48
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/20/2020 20:48
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/20/2020 20:48
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/20/2020 20:48
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/20/2020 20:48
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/20/2020 20:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-08-GW
Collection Date: 11/13/2020 11:45 AM

Work Order: 20111402
Lab ID: 20111402-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/20/2020 20:48
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/20/2020 20:48
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/20/2020 20:48
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/20/2020 20:48
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/20/2020 20:48
Styrene	U		0.00033	0.0010	mg/L	1	11/20/2020 20:48
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/20/2020 20:48
Toluene	U		0.00045	0.0010	mg/L	1	11/20/2020 20:48
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/20/2020 20:48
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/20/2020 20:48
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/20/2020 20:48
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/20/2020 20:48
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/20/2020 20:48
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/20/2020 20:48
Surr: 1,2-Dichloroethane-d4	*93.8*			*75-120*	*%REC*	1	11/20/2020 20:48
Surr: 4-Bromofluorobenzene	*93.1*			*80-110*	*%REC*	1	11/20/2020 20:48
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	11/20/2020 20:48
Surr: Toluene-d8	*90.2*			*85-110*	*%REC*	1	11/20/2020 20:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-09-GW
Collection Date: 11/12/2020 06:40 PM

Work Order: 20111402
Lab ID: 20111402-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 11/18/20		Analyst: **MAC**
Mercury	U		0.00016	0.00020	mg/L	1	11/18/2020 17:10
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020B**			Prep: SW3015A / 11/19/20		Analyst: **STP**
Arsenic	**0.00044**	J	**0.00019**	**0.0050**	**mg/L**	1	11/21/2020 01:03
Barium	**0.40**		**0.0020**	**0.0050**	**mg/L**	1	11/21/2020 01:03
Cadmium	**0.00022**	J	**0.00015**	**0.0020**	**mg/L**	1	11/23/2020 19:32
Chromium	U		0.0020	0.0050	mg/L	1	11/21/2020 01:03
Lead	U		0.00072	0.0050	mg/L	1	11/21/2020 01:03
Selenium	**0.00066**	J	**0.00048**	**0.0050**	**mg/L**	1	11/21/2020 01:03
Silver	U		0.00084	0.0050	mg/L	1	11/21/2020 01:03
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 11/19/20		Analyst: **EE**
1,1`-Biphenyl	U		0.00047	0.0056	mg/L	1	11/24/2020 21:32
2,4,5-Trichlorophenol	U		0.00019	0.0056	mg/L	1	11/24/2020 21:32
2,4,6-Trichlorophenol	U		0.00028	0.0056	mg/L	1	11/24/2020 21:32
2,4-Dichlorophenol	U		0.00039	0.0056	mg/L	1	11/24/2020 21:32
2,4-Dimethylphenol	U		0.00040	0.0056	mg/L	1	11/24/2020 21:32
2,4-Dinitrophenol	U		0.0029	0.0056	mg/L	1	11/24/2020 21:32
2,4-Dinitrotoluene	U		0.00047	0.0056	mg/L	1	11/24/2020 21:32
2,6-Dinitrotoluene	U		0.00012	0.0056	mg/L	1	11/24/2020 21:32
2-Chloronaphthalene	U		0.000083	0.0056	mg/L	1	11/24/2020 21:32
2-Chlorophenol	U		0.00026	0.0056	mg/L	1	11/24/2020 21:32
2-Methylnaphthalene	U		0.000072	0.0056	mg/L	1	11/24/2020 21:32
2-Methylphenol	U		0.00028	0.0056	mg/L	1	11/24/2020 21:32
2-Nitroaniline	U		0.00023	0.0056	mg/L	1	11/24/2020 21:32
2-Nitrophenol	U		0.00038	0.0056	mg/L	1	11/24/2020 21:32
3&4-Methylphenol	U		0.00023	0.0056	mg/L	1	11/24/2020 21:32
3,3´-Dimethylbenzidine	U		0.0081	0.022	mg/L	1	11/24/2020 21:32
3-Nitroaniline	U		0.00071	0.0056	mg/L	1	11/24/2020 21:32
4,6-Dinitro-2-methylphenol	U		0.00030	0.0056	mg/L	1	11/24/2020 21:32
4-Bromophenyl phenyl ether	U		0.00037	0.0056	mg/L	1	11/24/2020 21:32
4-Chloro-3-methylphenol	U		0.00029	0.0056	mg/L	1	11/24/2020 21:32
4-Chloroaniline	U		0.00038	0.0056	mg/L	1	11/24/2020 21:32
4-Chlorophenyl phenyl ether	U		0.00034	0.0056	mg/L	1	11/24/2020 21:32
4-Nitroaniline	U		0.00063	0.0056	mg/L	1	11/24/2020 21:32
4-Nitrophenol	U		0.00027	0.0056	mg/L	1	11/24/2020 21:32
Acenaphthene	U		0.000090	0.0056	mg/L	1	11/24/2020 21:32
Acenaphthylene	U		0.000083	0.0056	mg/L	1	11/24/2020 21:32
Acetophenone	U		0.00041	0.0011	mg/L	1	11/24/2020 21:32

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-09-GW
Collection Date: 11/12/2020 06:40 PM

Work Order: 20111402
Lab ID: 20111402-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	U		0.000031	0.0056	mg/L	1	11/24/2020 21:32
Atrazine	U		0.00039	0.0011	mg/L	1	11/24/2020 21:32
Benzaldehyde	U		0.00058	0.0011	mg/L	1	11/24/2020 21:32
Benzo(a)anthracene	U		0.00011	0.0056	mg/L	1	11/24/2020 21:32
Benzo(a)pyrene	U		0.000049	0.0056	mg/L	1	11/24/2020 21:32
Benzo(b)fluoranthene	U		0.000057	0.0056	mg/L	1	11/24/2020 21:32
Benzo(g,h,i)perylene	U		0.000099	0.0056	mg/L	1	11/24/2020 21:32
Benzo(k)fluoranthene	U		0.000053	0.0056	mg/L	1	11/24/2020 21:32
Bis(2-chloroethoxy)methane	U		0.00032	0.0056	mg/L	1	11/24/2020 21:32
Bis(2-chloroethyl)ether	U		0.00041	0.0056	mg/L	1	11/24/2020 21:32
Bis(2-chloroisopropyl)ether	U		0.00026	0.0056	mg/L	1	11/24/2020 21:32
Bis(2-ethylhexyl)phthalate	U		0.00044	0.0056	mg/L	1	11/24/2020 21:32
Butyl benzyl phthalate	**0.00078**	J	**0.00033**	**0.0056**	**mg/L**	1	11/24/2020 21:32
Caprolactam	U		0.0011	0.011	mg/L	1	11/24/2020 21:32
Carbazole	U		0.00027	0.0056	mg/L	1	11/24/2020 21:32
Chrysene	U		0.000053	0.0056	mg/L	1	11/24/2020 21:32
Dibenzo(a,h)anthracene	U		0.000081	0.0056	mg/L	1	11/24/2020 21:32
Dibenzofuran	U		0.00026	0.0056	mg/L	1	11/24/2020 21:32
Diethyl phthalate	U		0.00019	0.0056	mg/L	1	11/24/2020 21:32
Dimethyl phthalate	U		0.00020	0.0056	mg/L	1	11/24/2020 21:32
Di-n-butyl phthalate	U		0.00023	0.0056	mg/L	1	11/24/2020 21:32
Di-n-octyl phthalate	U		0.00059	0.0056	mg/L	1	11/24/2020 21:32
Fluoranthene	**0.00012**	J	**0.000042**	**0.0056**	**mg/L**	1	11/24/2020 21:32
Fluorene	U		0.000057	0.0056	mg/L	1	11/24/2020 21:32
Hexachlorobenzene	U		0.00049	0.0056	mg/L	1	11/24/2020 21:32
Hexachlorobutadiene	U		0.00070	0.0056	mg/L	1	11/24/2020 21:32
Hexachlorocyclopentadiene	U		0.0012	0.0056	mg/L	1	11/24/2020 21:32
Hexachloroethane	U		0.00069	0.0056	mg/L	1	11/24/2020 21:32
Indeno(1,2,3-cd)pyrene	U		0.000074	0.0056	mg/L	1	11/24/2020 21:32
Isophorone	U		0.00038	0.0056	mg/L	1	11/24/2020 21:32
Naphthalene	U		0.000074	0.0056	mg/L	1	11/24/2020 21:32
Nitrobenzene	U		0.00029	0.0056	mg/L	1	11/24/2020 21:32
N-Nitrosodi-n-propylamine	U		0.00039	0.0056	mg/L	1	11/24/2020 21:32
N-Nitrosodiphenylamine	U		0.00054	0.0056	mg/L	1	11/24/2020 21:32
Pentachlorophenol	U		0.0011	0.0056	mg/L	1	11/24/2020 21:32
Phenanthrene	**0.00030**	J	**0.000090**	**0.0056**	**mg/L**	1	11/24/2020 21:32
Phenol	U		0.00023	0.0056	mg/L	1	11/24/2020 21:32
Pyrene	U		0.000040	0.0056	mg/L	1	11/24/2020 21:32
Surr: 2,4,6-Tribromophenol	*60.2*			*27-83*	*%REC*	1	11/24/2020 21:32
Surr: 2-Fluorobiphenyl	*49.4*			*26-79*	*%REC*	1	11/24/2020 21:32

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-09-GW
Collection Date: 11/12/2020 06:40 PM

Work Order: 20111402
Lab ID: 20111402-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorophenol	*36.6*			*13-56*	*%REC*	1	11/24/2020 21:32
Surr: 4-Terphenyl-d14	*53.2*			*43-106*	*%REC*	1	11/24/2020 21:32
Surr: Nitrobenzene-d5	*47.6*			*29-80*	*%REC*	1	11/24/2020 21:32
Surr: Phenol-d6	*27.3*			*10-35*	*%REC*	1	11/24/2020 21:32
VOLATILE ORGANIC COMPOUNDS			Method:**SW8260C**				Analyst: **SJB**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/20/2020 21:09
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/20/2020 21:09
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/20/2020 21:09
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/20/2020 21:09
1,1-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/20/2020 21:09
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/20/2020 21:09
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/20/2020 21:09
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/20/2020 21:09
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/20/2020 21:09
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/20/2020 21:09
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/20/2020 21:09
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/20/2020 21:09
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/20/2020 21:09
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/20/2020 21:09
2-Butanone	U		0.00052	0.0050	mg/L	1	11/20/2020 21:09
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/20/2020 21:09
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/20/2020 21:09
Acetone	U		0.0062	0.010	mg/L	1	11/20/2020 21:09
Benzene	U		0.00046	0.0010	mg/L	1	11/20/2020 21:09
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/20/2020 21:09
Bromoform	U		0.00056	0.0010	mg/L	1	11/20/2020 21:09
Bromomethane	U		0.00090	0.0010	mg/L	1	11/20/2020 21:09
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/20/2020 21:09
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/20/2020 21:09
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/20/2020 21:09
Chloroethane	U		0.00068	0.0010	mg/L	1	11/20/2020 21:09
Chloroform	U		0.00046	0.0010	mg/L	1	11/20/2020 21:09
Chloromethane	U		0.00083	0.0010	mg/L	1	11/20/2020 21:09
cis-1,2-Dichloroethene	U		0.00042	0.0010	mg/L	1	11/20/2020 21:09
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/20/2020 21:09
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/20/2020 21:09
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/20/2020 21:09
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/20/2020 21:09
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/20/2020 21:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: 2020-BH-09-GW
Collection Date: 11/12/2020 06:40 PM

Work Order: 20111402
Lab ID: 20111402-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/20/2020 21:09
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/20/2020 21:09
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/20/2020 21:09
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/20/2020 21:09
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/20/2020 21:09
Styrene	U		0.00033	0.0010	mg/L	1	11/20/2020 21:09
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/20/2020 21:09
Toluene	U		0.00045	0.0010	mg/L	1	11/20/2020 21:09
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/20/2020 21:09
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/20/2020 21:09
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/20/2020 21:09
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/20/2020 21:09
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/20/2020 21:09
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/20/2020 21:09
Surr: 1,2-Dichloroethane-d4	*94.9*			*75-120*	*%REC*	1	11/20/2020 21:09
Surr: 4-Bromofluorobenzene	*94.4*			*80-110*	*%REC*	1	11/20/2020 21:09
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	11/20/2020 21:09
Surr: Toluene-d8	*89.2*			*85-110*	*%REC*	1	11/20/2020 21:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: Trip Blank
Collection Date: 11/13/2020

Work Order: 20111402
Lab ID: 20111402-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 16:44
1,1,2,2-Tetrachloroethane	U		0.00040	0.0010	mg/L	1	11/19/2020 16:44
1,1,2-Trichloroethane	U		0.00046	0.0010	mg/L	1	11/19/2020 16:44
1,1,2-Trichlorotrifluoroethane	U		0.00052	0.0010	mg/L	1	11/19/2020 16:44
1,1-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 16:44
1,1-Dichloroethene	U		0.00040	0.0010	mg/L	1	11/19/2020 16:44
1,2,4-Trichlorobenzene	U		0.00045	0.0010	mg/L	1	11/19/2020 16:44
1,2-Dibromo-3-chloropropane	U		0.00043	0.0010	mg/L	1	11/19/2020 16:44
1,2-Dibromoethane	U		0.00041	0.0010	mg/L	1	11/19/2020 16:44
1,2-Dichlorobenzene	U		0.00032	0.0010	mg/L	1	11/19/2020 16:44
1,2-Dichloroethane	U		0.00044	0.0010	mg/L	1	11/19/2020 16:44
1,2-Dichloropropane	U		0.00048	0.0010	mg/L	1	11/19/2020 16:44
1,3-Dichlorobenzene	U		0.00033	0.0010	mg/L	1	11/19/2020 16:44
1,4-Dichlorobenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 16:44
2-Butanone	U		0.00052	0.0050	mg/L	1	11/19/2020 16:44
2-Hexanone	U		0.00059	0.0050	mg/L	1	11/19/2020 16:44
4-Methyl-2-pentanone	U		0.00052	0.0010	mg/L	1	11/19/2020 16:44
Acetone	U		0.0062	0.010	mg/L	1	11/19/2020 16:44
Benzene	U		0.00046	0.0010	mg/L	1	11/19/2020 16:44
Bromodichloromethane	U		0.00049	0.0010	mg/L	1	11/19/2020 16:44
Bromoform	U		0.00056	0.0010	mg/L	1	11/19/2020 16:44
Bromomethane	U		0.00090	0.0010	mg/L	1	11/19/2020 16:44
Carbon disulfide	U		0.00049	0.0010	mg/L	1	11/19/2020 16:44
Carbon tetrachloride	U		0.00040	0.0010	mg/L	1	11/19/2020 16:44
Chlorobenzene	U		0.00040	0.0010	mg/L	1	11/19/2020 16:44
Chloroethane	U		0.00068	0.0010	mg/L	1	11/19/2020 16:44
Chloroform	U		0.00046	0.0010	mg/L	1	11/19/2020 16:44
Chloromethane	U		0.00083	0.0010	mg/L	1	11/19/2020 16:44
cis-1,2-Dichloroethene	U		0.00042	0.0010	mg/L	1	11/19/2020 16:44
cis-1,3-Dichloropropene	U		0.00057	0.0010	mg/L	1	11/19/2020 16:44
Cyclohexane	U		0.00063	0.0020	mg/L	1	11/19/2020 16:44
Dibromochloromethane	U		0.00040	0.0010	mg/L	1	11/19/2020 16:44
Dichlorodifluoromethane	U		0.00068	0.0010	mg/L	1	11/19/2020 16:44
Ethylbenzene	U		0.00034	0.0010	mg/L	1	11/19/2020 16:44
Isopropylbenzene	U		0.00035	0.0010	mg/L	1	11/19/2020 16:44
Methyl acetate	U		0.00059	0.0020	mg/L	1	11/19/2020 16:44
Methyl tert-butyl ether	U		0.00045	0.0010	mg/L	1	11/19/2020 16:44
Methylcyclohexane	U		0.00035	0.0010	mg/L	1	11/19/2020 16:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *25-Nov-20*

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
Sample ID: Trip Blank
Collection Date: 11/13/2020

Work Order: 20111402
Lab ID: 20111402-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.00086	0.0050	mg/L	1	11/19/2020 16:44
Styrene	U		0.00033	0.0010	mg/L	1	11/19/2020 16:44
Tetrachloroethene	U		0.00039	0.0010	mg/L	1	11/19/2020 16:44
Toluene	U		0.00045	0.0010	mg/L	1	11/19/2020 16:44
trans-1,2-Dichloroethene	U		0.00048	0.0010	mg/L	1	11/19/2020 16:44
trans-1,3-Dichloropropene	U		0.00038	0.0010	mg/L	1	11/19/2020 16:44
Trichloroethene	U		0.00043	0.0010	mg/L	1	11/19/2020 16:44
Trichlorofluoromethane	U		0.00052	0.0010	mg/L	1	11/19/2020 16:44
Vinyl chloride	U		0.00053	0.0010	mg/L	1	11/19/2020 16:44
Xylenes, Total	U		0.00081	0.0030	mg/L	1	11/19/2020 16:44
Surr: 1,2-Dichloroethane-d4	*109*			*75-120*	*%REC*	1	11/19/2020 16:44
Surr: 4-Bromofluorobenzene	*93.6*			*80-110*	*%REC*	1	11/19/2020 16:44
Surr: Dibromofluoromethane	*108*			*85-115*	*%REC*	1	11/19/2020 16:44
Surr: Toluene-d8	*100*			*85-110*	*%REC*	1	11/19/2020 16:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

Batch 167933 The MS/MSD data for Mercury is not related to this project's sample. No data requires qualification.

Batch 167993 Sample 20111402-02B SVO_8270_W Prep comment: Reduced volume due to limited sample quantity. Client Sample ID: 2020-BH-02-GW

Batch 167993 Sample 20111402-05B SVO_8270_W Prep comment: Reduced volume due to limited sample quantity. Client Sample ID: 2020-BH-05-GW

Batch 167993 Sample 20111402-07B SVO_8270_W Prep comment: Reduced volume due to limited sample quantity. Client Sample ID: 2020-BH-07-GW

Batch 167993 Sample 20111402-08B SVO_8270_W One or more acid surrogate recoveries were above the upper control limits. The acidic sample results may be biased high. 2,4,6-Tribromophenol Client Sample ID: 2020-BH-08-GW

Batch 167993 Sample 20111402-08B SVO_8270_W Prep comment: Reduced volume due to limited sample quantity. Client Sample ID: 2020-BH-08-GW

Batch 167993 Sample SLCSDW1-167993 SVO_8270_W The LCSD recovery was below the lower control limit. The sample results may be biased low for this analyte: Phenol; Fluoranthene

Batch 167993 Sample SLCSDW1-167993 SVO_8270_W The RPD between the LCS and LCSD was outside of the control limit. The sample results should be considered estimated for this analyte: Fluoranthene

Batch 167993 Sample SLCSW1-167993 SVO_8270_W The LCS recovery was below the lower control limit. The sample results for this batch may be biased low for this analyte: Phenol

Batch 167999 Sample 20111402-01B SVO_8270_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Bis(2-chloroethyl)ether Client Sample ID: 2020-BH-01-GW

Batch 167999 Sample 20111402-03B SVO_8270_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Bis(2-chloroethyl)ether Client Sample ID: 2020-BH-03-

GW

Batch 167999 Sample 20111402-04B SVO_8270_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Bis(2-chloroethyl)ether Client Sample ID: 2020-BH-04-GW

Batch 167999 Sample 20111402-06B SVO_8270_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Bis(2-chloroethyl)ether Client Sample ID: 2020-BH-06-GW

Batch 167999 Sample 20111402-09B SVO_8270_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Bis(2-chloroethyl)ether Client Sample ID: 2020-BH-09-GW

Batch 167999 Sample SLCSW1-167999 SVO_8270_W The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: Bis(2-chloroethyl)ether

Batch 167999 The MS/MSD data for semivolatiles is not related to this project's sample. No data requires qualification.

Batch R303043b Sample 20111402-01A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: 2020-BH-01-GW

Batch R303043b Sample 20111402-01A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: 2020-BH-01-GW

Batch R303043b Sample 20111402-02A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: 2020-BH-02-GW

Batch R303043b Sample 20111402-02A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: 2020-BH-02-GW

Batch R303043b Sample 20111402-03A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: 2020-BH-03-GW

Batch R303043b Sample 20111402-03A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: 2020-BH-03-GW

Batch R303043b Sample 20111402-04A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: 2020-BH-04-GW

Batch R303043b Sample 20111402-04A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: 2020-BH-04-GW

Batch R303043b Sample 20111402-05A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: 2020-BH-05-GW

Batch R303043b Sample 20111402-05A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: 2020-BH-05-GW

Batch R303043b Sample 20111402-06A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: 2020-BH-06-GW

Batch R303043b Sample 20111402-06A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: 2020-BH-06-GW

Batch R303043b Sample 20111402-07A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: 2020-BH-07-GW

Batch R303043b Sample 20111402-07A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were

non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: 2020-BH-07-GW

Batch R303043b Sample 20111402-10A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: bromomethane Client Sample ID: Trip Blank

Batch R303043b Sample 20111402-10A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane, trans-1,3-dichloropropane Client Sample ID: Trip Blank

Batch R303043b Sample VLCSW1-201119 VOC_8260_W The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: chloroethane, dichlorodifluoromethane, styrene

Batch R303043b The MS/MSD data for volatiles is not related to this project's sample. No data requires qualification.

Batch R303160A Sample 20111402-08A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 4-methyl-2-pentanone, 2-hexanone Client Sample ID: 2020-BH-08-GW

Batch R303160A Sample 20111402-08A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: bromomethane, chloroethane Client Sample ID: 2020-BH-08-GW

Batch R303160A Sample 20111402-09A VOC_8260_W The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimate: 4-methyl-2-pentanone, 2-hexanone Client Sample ID: 2020-BH-09-GW

Batch R303160A Sample 20111402-09A VOC_8260_W The Continuing Calibration Verification exceeded acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: bromomethane, chloroethane Client Sample ID: 2020-BH-09-GW

Batch R303160A Sample VLCSW1-201120 VOC_8260_W The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: bromomethane, dichlorodifluoromethane

Batch R303160A The MS/MSD data for volatiles is not related to this project's sample. No data requires qualification.

ALS Group, USA

Date: 25-Nov-20

Client: Golder Associates Inc.

QC BATCH REPORT

Work Order: 20111402

Project: Golder (Phase II Eaton Shenandoah)

Batch ID: **167933** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-167933-167933** Units: **mg/L** Analysis Date: **11/18/2020 04:30 PM**

Client ID: Run ID: **HG4_201118A** SeqNo: **6911978** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

LCS Sample ID: **LCS-167933-167933** Units: **mg/L** Analysis Date: **11/18/2020 04:37 PM**

Client ID: Run ID: **HG4_201118A** SeqNo: **6911982** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001965	0.00020	0.002	0	98.2	80-120	0			

MS Sample ID: **20111406-02AMS** Units: **mg/L** Analysis Date: **11/18/2020 05:14 PM**

Client ID: Run ID: **HG4_201118A** SeqNo: **6912003** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0561	0.0020	0.02	-0.000825	285	75-125	0			S

MSD Sample ID: **20111406-02AMSD** Units: **mg/L** Analysis Date: **11/18/2020 05:16 PM**

Client ID: Run ID: **HG4_201118A** SeqNo: **6912004** Prep Date: **11/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0213	0.0020	0.02	-0.000825	111	75-125	0.0561	89.9	20	R

The following samples were analyzed in this batch:

20111402-01C	20111402-02C	20111402-03C
20111402-04C	20111402-05C	20111402-06C
20111402-07C	20111402-08C	20111402-09C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **168017** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-168017-168017** Units: **mg/L** Analysis Date: **11/21/2020 12:14 AM**
Client ID: Run ID: **ICPMS3_201120A** SeqNo: **6925754** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050								
Barium	U	0.0050								
Chromium	U	0.0050								
Lead	U	0.0050								
Selenium	U	0.0050								
Silver	U	0.0050								

MBLK Sample ID: **MBLK-168017-168017** Units: **mg/L** Analysis Date: **11/23/2020 06:57 PM**
Client ID: Run ID: **ICPMS3_201123A** SeqNo: **6929900** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	U	0.0020								

LCS Sample ID: **LCS-168017-168017** Units: **mg/L** Analysis Date: **11/21/2020 12:15 AM**
Client ID: Run ID: **ICPMS3_201120A** SeqNo: **6925755** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1007	0.0050	0.1	0	101	80-120	0			
Barium	0.1027	0.0050	0.1	0	103	80-120	0			
Chromium	0.1031	0.0050	0.1	0	103	80-120	0			
Lead	0.1027	0.0050	0.1	0	103	80-120	0			
Selenium	0.1047	0.0050	0.1	0	105	80-120	0			
Silver	0.08999	0.0050	0.1	0	90	80-120	0			

LCS Sample ID: **LCS-168017-168017** Units: **mg/L** Analysis Date: **11/23/2020 06:58 PM**
Client ID: Run ID: **ICPMS3_201123A** SeqNo: **6929901** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	0.09831	0.0020	0.1	0	98.3	80-120	0			

MS Sample ID: **20111402-01CMS** Units: **mg/L** Analysis Date: **11/21/2020 12:40 AM**
Client ID: **2020-BH-01-GW** Run ID: **ICPMS3_201120A** SeqNo: **6925769** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09993	0.0050	0.1	0.0008833	99	75-125	0			
Barium	0.5049	0.0050	0.1	0.4111	93.8	75-125	0			O
Chromium	0.1029	0.0050	0.1	0.0006127	102	75-125	0			
Lead	0.1032	0.0050	0.1	0.0003245	103	75-125	0			
Selenium	0.09684	0.0050	0.1	0.0001166	96.7	75-125	0			
Silver	0.0873	0.0050	0.1	0.000011	87.3	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **168017** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20111402-01CMS** Units: **mg/L** Analysis Date: **11/23/2020 07:08 PM**
Client ID: **2020-BH-01-GW** Run ID: **ICPMS3_201123A** SeqNo: **6929907** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	0.09804	0.0020	0.1	0.0004554	97.6	75-125	0			

MSD Sample ID: **20111402-01CMSD** Units: **mg/L** Analysis Date: **11/21/2020 12:42 AM**
Client ID: **2020-BH-01-GW** Run ID: **ICPMS3_201120A** SeqNo: **6925770** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09789	0.0050	0.1	0.0008833	97	75-125	0.09993	2.06	20	
Barium	0.5025	0.0050	0.1	0.4111	91.4	75-125	0.5049	0.461	20	O
Chromium	0.09991	0.0050	0.1	0.0006127	99.3	75-125	0.1029	2.91	20	
Lead	0.1007	0.0050	0.1	0.0003245	100	75-125	0.1032	2.4	20	
Selenium	0.09551	0.0050	0.1	0.0001166	95.4	75-125	0.09684	1.39	20	
Silver	0.08538	0.0050	0.1	0.000011	85.4	75-125	0.0873	2.23	20	

MSD Sample ID: **20111402-01CMSD** Units: **mg/L** Analysis Date: **11/23/2020 07:10 PM**
Client ID: **2020-BH-01-GW** Run ID: **ICPMS3_201123A** SeqNo: **6929908** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	0.09546	0.0020	0.1	0.0004554	95	75-125	0.0884	7.68	20	

The following samples were analyzed in this batch:

20111402-01C	20111402-02C	20111402-03C
20111402-04C	20111402-05C	20111402-06C
20111402-07C	20111402-08C	20111402-09C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167993** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK	Sample ID: **SBLKW1-167993-167993**				Units: **µg/L**			Analysis Date: **11/20/2020 11:50 AM**		
Client ID:		Run ID: **SVMS8_201120A**			SeqNo: **6927177**		Prep Date: **11/19/2020**		DF: **1**	

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dichlorophenol	U	5.0								
2,4-Dimethylphenol	U	5.0								
2,4-Dinitrophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
2,6-Dinitrotoluene	U	5.0								
2-Chloronaphthalene	U	5.0								
2-Chlorophenol	U	5.0								
2-Methylnaphthalene	U	5.0								
2-Methylphenol	U	5.0								
2-Nitroaniline	U	5.0								
2-Nitrophenol	U	5.0								
3&4-Methylphenol	U	5.0								
3,3´-Dimethylbenzidine	U	20								
3-Nitroaniline	U	5.0								
4,6-Dinitro-2-methylphenol	U	5.0								
4-Bromophenyl phenyl ether	U	5.0								
4-Chloro-3-methylphenol	U	5.0								
4-Chloroaniline	U	5.0								
4-Chlorophenyl phenyl ether	U	5.0								
4-Nitroaniline	U	5.0								
4-Nitrophenol	U	5.0								
Acenaphthene	U	5.0								
Acenaphthylene	U	5.0								
Acetophenone	U	1.0								
Anthracene	U	5.0								
Atrazine	U	1.0								
Benzaldehyde	U	1.0								
Benzo(a)anthracene	U	5.0								
Benzo(a)pyrene	U	5.0								
Benzo(b)fluoranthene	U	5.0								
Benzo(g,h,i)perylene	U	5.0								
Benzo(k)fluoranthene	U	5.0								
Bis(2-chloroethoxy)methane	U	5.0								
Bis(2-chloroethyl)ether	U	5.0								
Bis(2-chloroisopropyl)ether	U	5.0								
Bis(2-ethylhexyl)phthalate	U	5.0								
Butyl benzyl phthalate	U	5.0								
Caprolactam	U	10								
Carbazole	U	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167993** Instrument ID **SVMS8** Method: **SW846 8270D**

Chrysene	U	5.0					
Dibenzo(a,h)anthracene	U	5.0					
Dibenzofuran	U	5.0					
Diethyl phthalate	U	5.0					
Dimethyl phthalate	U	5.0					
Di-n-butyl phthalate	U	5.0					
Di-n-octyl phthalate	U	5.0					
Fluoranthene	U	5.0					
Fluorene	U	5.0					
Hexachlorobenzene	U	5.0					
Hexachlorobutadiene	U	5.0					
Hexachlorocyclopentadiene	U	5.0					
Hexachloroethane	U	5.0					
Indeno(1,2,3-cd)pyrene	U	5.0					
Isophorone	U	5.0					
Naphthalene	U	5.0					
Nitrobenzene	U	5.0					
N-Nitrosodi-n-propylamine	U	5.0					
N-Nitrosodiphenylamine	U	5.0					
Pentachlorophenol	U	5.0					
Phenanthrene	U	5.0					
Phenol	U	5.0					
Pyrene	U	5.0					
Surr: 2,4,6-Tribromophenol	*28.94*	0	*50*	0	*57.9*	*27-83*	0
Surr: 2-Fluorobiphenyl	*17.04*	0	*50*	0	*34.1*	*26-79*	0
Surr: 2-Fluorophenol	*15.68*	0	*50*	0	*31.4*	*13-56*	0
Surr: 4-Terphenyl-d14	*34.66*	0	*50*	0	*69.3*	*43-106*	0
Surr: Nitrobenzene-d5	*20.17*	0	*50*	0	*40.3*	*29-80*	0
Surr: Phenol-d6	*8.33*	0	*50*	0	*16.7*	*10-35*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **167993** Instrument ID **SVMS8** Method: **SW846 8270D**

LCS	Sample ID: **SLCSW1-167993-167993**				Units: **µg/L**		Analysis Date: **11/20/2020 12:12 PM**			
Client ID:		Run ID: **SVMS8_201120A**			SeqNo: **6927178**		Prep Date: **11/19/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	11.07	5.0	20	0	55.4	40-85	0			
2,4,5-Trichlorophenol	10.67	5.0	20	0	53.4	47-84	0			
2,4,6-Trichlorophenol	11.38	5.0	20	0	56.9	45-83	0			
2,4-Dichlorophenol	11.61	5.0	20	0	58	39-84	0			
2,4-Dimethylphenol	14.67	5.0	20	0	73.4	34-79	0			
2,4-Dinitrophenol	8.54	5.0	20	0	42.7	11-117	0			
2,4-Dinitrotoluene	12.59	5.0	20	0	63	54-93	0			
2,6-Dinitrotoluene	13.31	5.0	20	0	66.6	51-90	0			
2-Chloronaphthalene	9.71	5.0	20	0	48.6	37-84	0			
2-Chlorophenol	12.04	5.0	20	0	60.2	38-83	0			
2-Methylnaphthalene	11.1	5.0	20	0	55.5	33-85	0			
2-Methylphenol	11.24	5.0	20	0	56.2	29-76	0			
2-Nitroaniline	11.98	5.0	20	0	59.9	45-94	0			
2-Nitrophenol	10.43	5.0	20	0	52.2	41-84	0			
3&4-Methylphenol	10.35	5.0	20	0	51.8	24-70	0			
3-Nitroaniline	13.27	5.0	20	0	66.4	50-93	0			
4,6-Dinitro-2-methylphenol	13.26	5.0	20	0	66.3	23-116	0			
4-Bromophenyl phenyl ether	15.5	5.0	20	0	77.5	51-93	0			
4-Chloro-3-methylphenol	10.98	5.0	20	0	54.9	41-86	0			
4-Chloroaniline	12.72	5.0	20	0	63.6	44-92	0			
4-Chlorophenyl phenyl ether	12.52	5.0	20	0	62.6	49-89	0			
4-Nitroaniline	10.44	5.0	20	0	52.2	47-98	0			
4-Nitrophenol	5.75	5.0	20	0	28.8	10-43	0			
Acenaphthene	12.08	5.0	20	0	60.4	42-85	0			
Acenaphthylene	12.63	5.0	20	0	63.2	42-88	0			
Acetophenone	13.2	1.0	20	0	66	39-91	0			
Anthracene	16.71	5.0	20	0	83.6	55-93	0			
Atrazine	13.27	1.0	20	0	66.4	52-100	0			
Benzaldehyde	12.12	1.0	20	0	60.6	42-110	0			
Benzo(a)anthracene	14.1	5.0	20	0	70.5	56-91	0			
Benzo(a)pyrene	13.7	5.0	20	0	68.5	55-96	0			
Benzo(b)fluoranthene	14.64	5.0	20	0	73.2	55-99	0			
Benzo(g,h,i)perylene	13.61	5.0	20	0	68	44-102	0			
Benzo(k)fluoranthene	13.8	5.0	20	0	69	57-96	0			
Bis(2-chloroethoxy)methane	11.4	5.0	20	0	57	39-88	0			
Bis(2-chloroethyl)ether	12.48	5.0	20	0	62.4	36-91	0			
Bis(2-chloroisopropyl)ether	11.2	5.0	20	0	56	33-83	0			
Bis(2-ethylhexyl)phthalate	15.5	5.0	20	0	77.5	39-113	0			
Butyl benzyl phthalate	14.13	5.0	20	0	70.6	49-97	0			
Carbazole	16.21	5.0	20	0	81	59-92	0			
Chrysene	13.96	5.0	20	0	69.8	55-92	0			
Dibenzo(a,h)anthracene	13.89	5.0	20	0	69.4	47-100	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167993** Instrument ID **SVMS8** Method: **SW846 8270D**

Dibenzofuran	12.29	5.0	20	0	61.4	44-89	0	
Diethyl phthalate	12.16	5.0	20	0	60.8	54-95	0	
Dimethyl phthalate	13.65	5.0	20	0	68.2	51-92	0	
Di-n-butyl phthalate	17.87	5.0	20	0	89.4	57-98	0	
Di-n-octyl phthalate	17.03	5.0	20	0	85.2	36-117	0	
Fluoranthene	15.88	5.0	20	0	79.4	59-93	0	
Fluorene	11.17	5.0	20	0	55.8	47-91	0	
Hexachlorobenzene	13.85	5.0	20	0	69.2	53-89	0	
Hexachlorobutadiene	7.83	5.0	20	0	39.2	11-83	0	
Hexachlorocyclopentadiene	8.69	5.0	20	0	43.4	14-75	0	
Hexachloroethane	7.12	5.0	20	0	35.6	10-85	0	
Indeno(1,2,3-cd)pyrene	13.61	5.0	20	0	68	46-102	0	
Isophorone	10.39	5.0	20	0	52	42-90	0	
Naphthalene	7.97	5.0	20	0	39.8	26-78	0	
Nitrobenzene	10.7	5.0	20	0	53.5	38-86	0	
N-Nitrosodi-n-propylamine	13.98	5.0	20	0	69.9	39-95	0	
N-Nitrosodiphenylamine	15.48	5.0	20	0	77.4	47-94	0	
Pentachlorophenol	11.3	5.0	20	0	56.5	37-94	0	
Phenanthrene	13.58	5.0	20	0	67.9	51-90	0	
Phenol	1.06	5.0	20	0	5.3	10-40	0	JS
Pyrene	15.48	5.0	20	0	77.4	48-98	0	
Surr: 2,4,6-Tribromophenol	*36.82*	0	*50*	0	*73.6*	*27-83*	0	
Surr: 2-Fluorobiphenyl	*25.01*	0	*50*	0	*50*	*26-79*	0	
Surr: 2-Fluorophenol	*20.87*	0	*50*	0	*41.7*	*13-56*	0	
Surr: 4-Terphenyl-d14	*39.09*	0	*50*	0	*78.2*	*43-106*	0	
Surr: Nitrobenzene-d5	*25.19*	0	*50*	0	*50.4*	*29-80*	0	
Surr: Phenol-d6	*13.4*	0	*50*	0	*26.8*	*10-35*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **167993** Instrument ID **SVMS8** Method: **SW846 8270D**

LCSD	Sample ID: **SLCSDW1-167993-167993**				Units: **µg/L**			Analysis Date: **11/20/2020 12:33 PM**			
Client ID:		Run ID: **SVMS8_201120A**			SeqNo: **6927179**			Prep Date: **11/19/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	11.61	5.0	20	0	58	40-85	11.07	4.76	30	
2,4,5-Trichlorophenol	11.98	5.0	20	0	59.9	47-84	10.67	11.6	30	
2,4,6-Trichlorophenol	12.07	5.0	20	0	60.4	45-83	11.38	5.88	30	
2,4-Dichlorophenol	11.5	5.0	20	0	57.5	39-84	11.61	0.952	30	
2,4-Dimethylphenol	12.92	5.0	20	0	64.6	34-79	14.67	12.7	30	
2,4-Dinitrophenol	9.57	5.0	20	0	47.8	11-117	8.54	11.4	30	
2,4-Dinitrotoluene	12.97	5.0	20	0	64.8	54-93	12.59	2.97	30	
2,6-Dinitrotoluene	12.84	5.0	20	0	64.2	51-90	13.31	3.59	30	
2-Chloronaphthalene	10.08	5.0	20	0	50.4	37-84	9.71	3.74	30	
2-Chlorophenol	10.31	5.0	20	0	51.6	38-83	12.04	15.5	30	
2-Methylnaphthalene	10.03	5.0	20	0	50.2	33-85	11.1	10.1	30	
2-Methylphenol	10.18	5.0	20	0	50.9	29-76	11.24	9.9	30	
2-Nitroaniline	11.35	5.0	20	0	56.8	45-94	11.98	5.4	30	
2-Nitrophenol	11.12	5.0	20	0	55.6	41-84	10.43	6.4	30	
3&4-Methylphenol	9.2	5.0	20	0	46	24-70	10.35	11.8	30	
3-Nitroaniline	13.31	5.0	20	0	66.6	50-93	13.27	0.301	30	
4,6-Dinitro-2-methylphenol	12.6	5.0	20	0	63	23-116	13.26	5.1	30	
4-Bromophenyl phenyl ether	13.54	5.0	20	0	67.7	51-93	15.5	13.5	30	
4-Chloro-3-methylphenol	11.96	5.0	20	0	59.8	41-86	10.98	8.54	30	
4-Chloroaniline	13.02	5.0	20	0	65.1	44-92	12.72	2.33	30	
4-Chlorophenyl phenyl ether	13.15	5.0	20	0	65.8	49-89	12.52	4.91	30	
4-Nitroaniline	11.99	5.0	20	0	60	47-98	10.44	13.8	30	
4-Nitrophenol	6.04	5.0	20	0	30.2	10-43	5.75	4.92	30	
Acenaphthene	11.36	5.0	20	0	56.8	42-85	12.08	6.14	30	
Acenaphthylene	11.74	5.0	20	0	58.7	42-88	12.63	7.3	30	
Acetophenone	11.41	1.0	20	0	57	39-91	13.2	14.5	30	
Anthracene	12.97	5.0	20	0	64.8	55-93	16.71	25.2	30	
Atrazine	14.29	1.0	20	0	71.4	52-100	13.27	7.4	30	
Benzaldehyde	10.2	1.0	20	0	51	42-110	12.12	17.2	30	
Benzo(a)anthracene	13.17	5.0	20	0	65.8	56-91	14.1	6.82	30	
Benzo(a)pyrene	13.03	5.0	20	0	65.2	55-96	13.7	5.01	30	
Benzo(b)fluoranthene	13.92	5.0	20	0	69.6	55-99	14.64	5.04	30	
Benzo(g,h,i)perylene	14.03	5.0	20	0	70.2	44-102	13.61	3.04	30	
Benzo(k)fluoranthene	12.82	5.0	20	0	64.1	57-96	13.8	7.36	30	
Bis(2-chloroethoxy)methane	10.87	5.0	20	0	54.4	39-88	11.4	4.76	30	
Bis(2-chloroethyl)ether	10.68	5.0	20	0	53.4	36-91	12.48	15.5	30	
Bis(2-chloroisopropyl)ether	10.42	5.0	20	0	52.1	33-83	11.2	7.22	30	
Bis(2-ethylhexyl)phthalate	15.57	5.0	20	0	77.8	39-113	15.5	0.451	30	
Butyl benzyl phthalate	13.76	5.0	20	0	68.8	49-97	14.13	2.65	30	
Carbazole	12.72	5.0	20	0	63.6	59-92	16.21	24.1	30	
Chrysene	13.26	5.0	20	0	66.3	55-92	13.96	5.14	30	
Dibenzo(a,h)anthracene	13.3	5.0	20	0	66.5	47-100	13.89	4.34	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **167993** Instrument ID **SVMS8** Method: **SW846 8270D**

Dibenzofuran	11.87	5.0	20	0	59.4	44-89	12.29	3.48	30	
Diethyl phthalate	13.62	5.0	20	0	68.1	54-95	12.16	11.3	30	
Dimethyl phthalate	13.24	5.0	20	0	66.2	51-92	13.65	3.05	30	
Di-n-butyl phthalate	14.52	5.0	20	0	72.6	57-98	17.87	20.7	30	
Di-n-octyl phthalate	18.13	5.0	20	0	90.6	36-117	17.03	6.26	30	
Fluoranthene	11.11	5.0	20	0	55.6	59-93	15.88	35.3	30	SR
Fluorene	12.12	5.0	20	0	60.6	47-91	11.17	8.16	30	
Hexachlorobenzene	12.69	5.0	20	0	63.4	53-89	13.85	8.74	30	
Hexachlorobutadiene	8.06	5.0	20	0	40.3	11-83	7.83	2.89	30	
Hexachlorocyclopentadiene	8.73	5.0	20	0	43.6	14-75	8.69	0.459	30	
Hexachloroethane	6.95	5.0	20	0	34.8	10-85	7.12	2.42	30	
Indeno(1,2,3-cd)pyrene	14.54	5.0	20	0	72.7	46-102	13.61	6.61	30	
Isophorone	11.78	5.0	20	0	58.9	42-90	10.39	12.5	30	
Naphthalene	7.68	5.0	20	0	38.4	26-78	7.97	3.71	30	
Nitrobenzene	10.36	5.0	20	0	51.8	38-86	10.7	3.23	30	
N-Nitrosodi-n-propylamine	11.68	5.0	20	0	58.4	39-95	13.98	17.9	30	
N-Nitrosodiphenylamine	12.51	5.0	20	0	62.6	47-94	15.48	21.2	30	
Pentachlorophenol	11.44	5.0	20	0	57.2	37-94	11.3	1.23	30	
Phenanthrene	12.87	5.0	20	0	64.4	51-90	13.58	5.37	30	
Phenol	0.9	5.0	20	0	4.5	10-40	1.06	0	30	JS
Pyrene	13.1	5.0	20	0	65.5	48-98	15.48	16.7	30	
Surr: 2,4,6-Tribromophenol	*34.83*	0	*50*	0	*69.7*	*27-83*	36.82	*5.55*	*40*	
Surr: 2-Fluorobiphenyl	*26.63*	0	*50*	0	*53.3*	*26-79*	25.01	*6.27*	*40*	
Surr: 2-Fluorophenol	*17.31*	0	*50*	0	*34.6*	*13-56*	20.87	*18.6*	*40*	
Surr: 4-Terphenyl-d14	*33.82*	0	*50*	0	*67.6*	*43-106*	39.09	*14.5*	*40*	
Surr: Nitrobenzene-d5	*26.1*	0	*50*	0	*52.2*	*29-80*	25.19	*3.55*	*40*	
Surr: Phenol-d6	*10.5*	0	*50*	0	*21*	*10-35*	13.4	*24.3*	*40*	

The following samples were analyzed in this batch: 20111402-02B 20111402-05B 20111402-07B 20111402-08B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK	Sample ID: **SBLKW1-167999-167999**				Units: **µg/L**		Analysis Date: **11/24/2020 05:13 PM**			
Client ID:		Run ID: **SVMS8_201124A**			SeqNo: **6933541**		Prep Date: **11/19/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dichlorophenol	U	5.0								
2,4-Dimethylphenol	U	5.0								
2,4-Dinitrophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
2,6-Dinitrotoluene	U	5.0								
2-Chloronaphthalene	U	5.0								
2-Chlorophenol	U	5.0								
2-Methylnaphthalene	U	5.0								
2-Methylphenol	U	5.0								
2-Nitroaniline	U	5.0								
2-Nitrophenol	U	5.0								
3&4-Methylphenol	U	5.0								
3,3´-Dimethylbenzidine	U	20								
3-Nitroaniline	U	5.0								
4,6-Dinitro-2-methylphenol	U	5.0								
4-Bromophenyl phenyl ether	U	5.0								
4-Chloro-3-methylphenol	U	5.0								
4-Chloroaniline	U	5.0								
4-Chlorophenyl phenyl ether	U	5.0								
4-Nitroaniline	U	5.0								
4-Nitrophenol	U	5.0								
Acenaphthene	U	5.0								
Acenaphthylene	U	5.0								
Acetophenone	U	1.0								
Anthracene	U	5.0								
Atrazine	U	1.0								
Benzaldehyde	U	1.0								
Benzo(a)anthracene	U	5.0								
Benzo(a)pyrene	U	5.0								
Benzo(b)fluoranthene	U	5.0								
Benzo(g,h,i)perylene	U	5.0								
Benzo(k)fluoranthene	U	5.0								
Bis(2-chloroethoxy)methane	U	5.0								
Bis(2-chloroethyl)ether	U	5.0								
Bis(2-chloroisopropyl)ether	U	5.0								
Bis(2-ethylhexyl)phthalate	U	5.0								
Butyl benzyl phthalate	U	5.0								
Caprolactam	U	10								
Carbazole	U	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

Chrysene	U	5.0					
Dibenzo(a,h)anthracene	U	5.0					
Dibenzofuran	U	5.0					
Diethyl phthalate	U	5.0					
Dimethyl phthalate	U	5.0					
Di-n-butyl phthalate	U	5.0					
Di-n-octyl phthalate	U	5.0					
Fluoranthene	U	5.0					
Fluorene	U	5.0					
Hexachlorobenzene	U	5.0					
Hexachlorobutadiene	U	5.0					
Hexachlorocyclopentadiene	U	5.0					
Hexachloroethane	U	5.0					
Indeno(1,2,3-cd)pyrene	U	5.0					
Isophorone	U	5.0					
Naphthalene	U	5.0					
Nitrobenzene	U	5.0					
N-Nitrosodi-n-propylamine	U	5.0					
N-Nitrosodiphenylamine	U	5.0					
Pentachlorophenol	U	5.0					
Phenanthrene	U	5.0					
Phenol	U	5.0					
Pyrene	U	5.0					
Surr: 2,4,6-Tribromophenol	*30.61*	0	*50*	0	*61.2*	*27-83*	0
Surr: 2-Fluorobiphenyl	*25.31*	0	*50*	0	*50.6*	*26-79*	0
Surr: 2-Fluorophenol	*20.62*	0	*50*	0	*41.2*	*13-56*	0
Surr: 4-Terphenyl-d14	*30.56*	0	*50*	0	*61.1*	*43-106*	0
Surr: Nitrobenzene-d5	*23.55*	0	*50*	0	*47.1*	*29-80*	0
Surr: Phenol-d6	*13.47*	0	*50*	0	*26.9*	*10-35*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

LCS	Sample ID: **SLCSW1-167999-167999**				Units: **µg/L**		Analysis Date: **11/24/2020 05:34 PM**			
Client ID:		Run ID: **SVMS8_201124A**			SeqNo: **6933542**		Prep Date: **11/19/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	10.26	5.0	20	0	51.3	40-85	0			
2,4,5-Trichlorophenol	13.28	5.0	20	0	66.4	47-84	0			
2,4,6-Trichlorophenol	12.91	5.0	20	0	64.6	45-83	0			
2,4-Dichlorophenol	12.55	5.0	20	0	62.8	39-84	0			
2,4-Dimethylphenol	9.89	5.0	20	0	49.4	34-79	0			
2,4-Dinitrophenol	10.02	5.0	20	0	50.1	11-117	0			
2,4-Dinitrotoluene	14.5	5.0	20	0	72.5	54-93	0			
2,6-Dinitrotoluene	13.83	5.0	20	0	69.2	51-90	0			
2-Chloronaphthalene	10.13	5.0	20	0	50.6	37-84	0			
2-Chlorophenol	12.12	5.0	20	0	60.6	38-83	0			
2-Methylnaphthalene	8.47	5.0	20	0	42.4	33-85	0			
2-Methylphenol	11.29	5.0	20	0	56.4	29-76	0			
2-Nitroaniline	13.66	5.0	20	0	68.3	45-94	0			
2-Nitrophenol	11.89	5.0	20	0	59.4	41-84	0			
3&4-Methylphenol	10.57	5.0	20	0	52.8	24-70	0			
3-Nitroaniline	15.26	5.0	20	0	76.3	50-93	0			
4,6-Dinitro-2-methylphenol	13.88	5.0	20	0	69.4	23-116	0			
4-Bromophenyl phenyl ether	14.01	5.0	20	0	70	51-93	0			
4-Chloro-3-methylphenol	13.21	5.0	20	0	66	41-86	0			
4-Chloroaniline	14.17	5.0	20	0	70.8	44-92	0			
4-Chlorophenyl phenyl ether	12.95	5.0	20	0	64.8	49-89	0			
4-Nitroaniline	14.95	5.0	20	0	74.8	47-98	0			
4-Nitrophenol	6.51	5.0	20	0	32.6	10-43	0			
Acenaphthene	12	5.0	20	0	60	42-85	0			
Acenaphthylene	11.76	5.0	20	0	58.8	42-88	0			
Acetophenone	12.16	1.0	20	0	60.8	39-91	0			
Anthracene	14.9	5.0	20	0	74.5	55-93	0			
Atrazine	14.84	1.0	20	0	74.2	52-100	0			
Benzaldehyde	11.37	1.0	20	0	56.8	42-110	0			
Benzo(a)anthracene	15	5.0	20	0	75	56-91	0			
Benzo(a)pyrene	14.69	5.0	20	0	73.4	55-96	0			
Benzo(b)fluoranthene	13.16	5.0	20	0	65.8	55-99	0			
Benzo(g,h,i)perylene	10.86	5.0	20	0	54.3	44-102	0			
Benzo(k)fluoranthene	12.96	5.0	20	0	64.8	57-96	0			
Bis(2-chloroethoxy)methane	12.58	5.0	20	0	62.9	39-88	0			
Bis(2-chloroethyl)ether	41	5.0	20	0	205	36-91	0			S
Bis(2-chloroisopropyl)ether	11.26	5.0	20	0	56.3	33-83	0			
Bis(2-ethylhexyl)phthalate	15.17	5.0	20	0	75.8	39-113	0			
Butyl benzyl phthalate	13.5	5.0	20	0	67.5	49-97	0			
Carbazole	15.79	5.0	20	0	79	59-92	0			
Chrysene	15.15	5.0	20	0	75.8	55-92	0			
Dibenzo(a,h)anthracene	11.95	5.0	20	0	59.8	47-100	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

Dibenzofuran	12.58	5.0	20	0	62.9	44-89	0	
Diethyl phthalate	14.45	5.0	20	0	72.2	54-95	0	
Dimethyl phthalate	14.19	5.0	20	0	71	51-92	0	
Di-n-butyl phthalate	15.17	5.0	20	0	75.8	57-98	0	
Di-n-octyl phthalate	13.26	5.0	20	0	66.3	36-117	0	
Fluoranthene	15.01	5.0	20	0	75	59-93	0	
Fluorene	13.04	5.0	20	0	65.2	47-91	0	
Hexachlorobenzene	14.47	5.0	20	0	72.4	53-89	0	
Hexachlorobutadiene	3.5	5.0	20	0	17.5	11-83	0	J
Hexachlorocyclopentadiene	4.18	5.0	20	0	20.9	14-75	0	J
Hexachloroethane	3.24	5.0	20	0	16.2	10-85	0	J
Indeno(1,2,3-cd)pyrene	11.71	5.0	20	0	58.6	46-102	0	
Isophorone	12.7	5.0	20	0	63.5	42-90	0	
Naphthalene	7.94	5.0	20	0	39.7	26-78	0	
Nitrobenzene	11.32	5.0	20	0	56.6	38-86	0	
N-Nitrosodi-n-propylamine	12.8	5.0	20	0	64	39-95	0	
N-Nitrosodiphenylamine	13.62	5.0	20	0	68.1	47-94	0	
Pentachlorophenol	9.54	5.0	20	0	47.7	37-94	0	
Phenanthrene	14.7	5.0	20	0	73.5	51-90	0	
Phenol	5.27	5.0	20	0	26.4	10-40	0	
Pyrene	13.34	5.0	20	0	66.7	48-98	0	
Surr: 2,4,6-Tribromophenol	*34.08*	0	*50*	0	*68.2*	*27-83*	0	
Surr: 2-Fluorobiphenyl	*28.1*	0	*50*	0	*56.2*	*26-79*	0	
Surr: 2-Fluorophenol	*19.29*	0	*50*	0	*38.6*	*13-56*	0	
Surr: 4-Terphenyl-d14	*33.39*	0	*50*	0	*66.8*	*43-106*	0	
Surr: Nitrobenzene-d5	*28.35*	0	*50*	0	*56.7*	*29-80*	0	
Surr: Phenol-d6	*13.3*	0	*50*	0	*26.6*	*10-35*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

MS Sample ID: **20111358-03B MS** Units: **µg/L** Analysis Date: **11/24/2020 07:00 PM**

Client ID: Run ID: **SVMS8_201124A** SeqNo: **6933546** Prep Date: **11/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	35.17	5.0	20	25.86	46.6	40-85	0			
2,4,5-Trichlorophenol	15.1	5.0	20	0	75.5	47-84	0			
2,4,6-Trichlorophenol	14.92	5.0	20	0	74.6	45-83	0			
2,4-Dichlorophenol	13.19	5.0	20	0	66	39-84	0			
2,4-Dimethylphenol	14	5.0	20	0	70	34-79	0			
2,4-Dinitrophenol	15.97	5.0	20	0	79.8	11-117	0			
2,4-Dinitrotoluene	16.25	5.0	20	0	81.2	54-93	0			
2,6-Dinitrotoluene	14.63	5.0	20	0	73.2	51-90	0			
2-Chloronaphthalene	12.48	5.0	20	0	62.4	37-84	0			
2-Chlorophenol	11.77	5.0	20	0	58.8	38-83	0			
2-Methylnaphthalene	116.9	5.0	20	92.9	120	33-85	0			SEO
2-Methylphenol	11.97	5.0	20	0	59.8	29-76	0			
2-Nitroaniline	15.77	5.0	20	0	78.8	45-94	0			
2-Nitrophenol	12.32	5.0	20	0	61.6	41-84	0			
3&4-Methylphenol	11.83	5.0	20	0	59.2	24-70	0			
3-Nitroaniline	16.33	5.0	20	0	81.6	50-93	0			
4,6-Dinitro-2-methylphenol	16.24	5.0	20	0	81.2	23-116	0			
4-Bromophenyl phenyl ether	16.52	5.0	20	0	82.6	51-93	0			
4-Chloro-3-methylphenol	14.98	5.0	20	0	74.9	41-86	0			
4-Chloroaniline	13.39	5.0	20	0	67	44-92	0			
4-Chlorophenyl phenyl ether	13.39	5.0	20	0	67	49-89	0			
4-Nitroaniline	14.3	5.0	20	0	71.5	47-98	0			
4-Nitrophenol	10.73	5.0	20	0	53.6	10-43	0			S
Acenaphthene	60.77	5.0	20	47.04	68.6	42-85	0			E
Acenaphthylene	18.99	5.0	20	5.97	65.1	42-88	0			
Acetophenone	13.08	1.0	20	0	65.4	39-91	0			
Anthracene	16.58	5.0	20	0.61	79.8	55-93	0			
Atrazine	13.46	1.0	20	0	67.3	52-100	0			
Benzaldehyde	12.79	1.0	20	0	64	42-110	0			
Benzo(a)anthracene	15.83	5.0	20	0	79.2	56-91	0			
Benzo(a)pyrene	16.47	5.0	20	0	82.4	55-96	0			
Benzo(b)fluoranthene	16.5	5.0	20	0	82.5	55-99	0			
Benzo(g,h,i)perylene	16.84	5.0	20	0	84.2	44-102	0			
Benzo(k)fluoranthene	17.04	5.0	20	0	85.2	57-96	0			
Bis(2-chloroethoxy)methane	13.24	5.0	20	0	66.2	39-88	0			
Bis(2-chloroethyl)ether	41.56	5.0	20	0	208	36-91	0			S
Bis(2-chloroisopropyl)ether	11.57	5.0	20	0	57.8	33-83	0			
Bis(2-ethylhexyl)phthalate	17.97	5.0	20	0	89.8	39-113	0			
Butyl benzyl phthalate	11.87	5.0	20	0	59.4	49-97	0			
Carbazole	19.67	5.0	20	2.83	84.2	59-92	0			
Chrysene	16.63	5.0	20	0	83.2	55-92	0			
Dibenzo(a,h)anthracene	15.8	5.0	20	0	79	47-100	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

Dibenzofuran	48.11	5.0	20	43.06	25.2	44-89	0	S
Diethyl phthalate	15.2	5.0	20	0	76	54-95	0	
Dimethyl phthalate	14.61	5.0	20	0	73	51-92	0	
Di-n-butyl phthalate	18.09	5.0	20	0	90.4	57-98	0	
Di-n-octyl phthalate	17.59	5.0	20	0	88	36-117	0	
Fluoranthene	18.72	5.0	20	0.11	93	59-93	0	S
Fluorene	35.56	5.0	20	28.31	36.2	47-91	0	S
Hexachlorobenzene	16.88	5.0	20	0	84.4	53-89	0	
Hexachlorobutadiene	8.57	5.0	20	0	42.8	11-83	0	
Hexachlorocyclopentadiene	7.44	5.0	20	0	37.2	14-75	0	
Hexachloroethane	8.5	5.0	20	0	42.5	10-85	0	
Indeno(1,2,3-cd)pyrene	14.68	5.0	20	0	73.4	46-102	0	
Isophorone	13.56	5.0	20	0	67.8	42-90	0	
Naphthalene	249.9	5.0	20	251.5	-7.75	26-78	0	SEO
Nitrobenzene	12.13	5.0	20	0	60.6	38-86	0	
N-Nitrosodi-n-propylamine	12.92	5.0	20	0	64.6	39-95	0	
N-Nitrosodiphenylamine	13.97	5.0	20	0	69.8	47-94	0	
Pentachlorophenol	19.31	5.0	20	0	96.6	37-94	0	S
Phenanthrene	25.74	5.0	20	10.16	77.9	51-90	0	
Phenol	6.58	5.0	20	0	32.9	10-40	0	
Pyrene	12.31	5.0	20	0	61.6	48-98	0	
Surr: 2,4,6-Tribromophenol	*35.63*	0	*50*	0	*71.3*	*27-83*	0	
Surr: 2-Fluorobiphenyl	*32.09*	0	*50*	0	*64.2*	*26-79*	0	
Surr: 2-Fluorophenol	*20.13*	0	*50*	0	*40.3*	*13-56*	0	
Surr: 4-Terphenyl-d14	*28.07*	0	*50*	0	*56.1*	*43-106*	0	
Surr: Nitrobenzene-d5	*30.85*	0	*50*	0	*61.7*	*29-80*	0	
Surr: Phenol-d6	*15.33*	0	*50*	0	*30.7*	*10-35*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

MSD	Sample ID: **20111358-03B MSD**				Units: **µg/L**			Analysis Date: **11/24/2020 07:22 PM**			
Client ID:		Run ID: **SVMS8_201124A**			SeqNo: **6933547**		Prep Date: **11/19/2020**		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	33.46	5.0	20	25.86	38	40-85	35.17	4.98	30	S
2,4,5-Trichlorophenol	14.02	5.0	20	0	70.1	47-84	15.1	7.42	30	
2,4,6-Trichlorophenol	14.03	5.0	20	0	70.2	45-83	14.92	6.15	30	
2,4-Dichlorophenol	12.5	5.0	20	0	62.5	39-84	13.19	5.37	30	
2,4-Dimethylphenol	13.14	5.0	20	0	65.7	34-79	14	6.34	30	
2,4-Dinitrophenol	14.52	5.0	20	0	72.6	11-117	15.97	9.51	30	
2,4-Dinitrotoluene	14.87	5.0	20	0	74.4	54-93	16.25	8.87	30	
2,6-Dinitrotoluene	13.75	5.0	20	0	68.8	51-90	14.63	6.2	30	
2-Chloronaphthalene	12.84	5.0	20	0	64.2	37-84	12.48	2.84	30	
2-Chlorophenol	11.21	5.0	20	0	56	38-83	11.77	4.87	30	
2-Methylnaphthalene	108.5	5.0	20	92.9	78.2	33-85	116.9	7.42	30	EO
2-Methylphenol	11.21	5.0	20	0	56	29-76	11.97	6.56	30	
2-Nitroaniline	14.73	5.0	20	0	73.6	45-94	15.77	6.82	30	
2-Nitrophenol	11.84	5.0	20	0	59.2	41-84	12.32	3.97	30	
3&4-Methylphenol	11.8	5.0	20	0	59	24-70	11.83	0.254	30	
3-Nitroaniline	15.64	5.0	20	0	78.2	50-93	16.33	4.32	30	
4,6-Dinitro-2-methylphenol	14.56	5.0	20	0	72.8	23-116	16.24	10.9	30	
4-Bromophenyl phenyl ether	14.92	5.0	20	0	74.6	51-93	16.52	10.2	30	
4-Chloro-3-methylphenol	12.99	5.0	20	0	65	41-86	14.98	14.2	30	
4-Chloroaniline	13.02	5.0	20	0	65.1	44-92	13.39	2.8	30	
4-Chlorophenyl phenyl ether	12.89	5.0	20	0	64.4	49-89	13.39	3.81	30	
4-Nitroaniline	12.87	5.0	20	0	64.4	47-98	14.3	10.5	30	
4-Nitrophenol	8.6	5.0	20	0	43	10-43	10.73	22	30	
Acenaphthene	57.96	5.0	20	47.04	54.6	42-85	60.77	4.73	30	
Acenaphthylene	17.73	5.0	20	5.97	58.8	42-88	18.99	6.86	30	
Acetophenone	12.46	1.0	20	0	62.3	39-91	13.08	4.86	30	
Anthracene	14.84	5.0	20	0.61	71.2	55-93	16.58	11.1	30	
Atrazine	13.02	1.0	20	0	65.1	52-100	13.46	3.32	30	
Benzaldehyde	12.51	1.0	20	0	62.6	42-110	12.79	2.21	30	
Benzo(a)anthracene	14.24	5.0	20	0	71.2	56-91	15.83	10.6	30	
Benzo(a)pyrene	14.49	5.0	20	0	72.4	55-96	16.47	12.8	30	
Benzo(b)fluoranthene	14.58	5.0	20	0	72.9	55-99	16.5	12.4	30	
Benzo(g,h,i)perylene	14.65	5.0	20	0	73.2	44-102	16.84	13.9	30	
Benzo(k)fluoranthene	15.26	5.0	20	0	76.3	57-96	17.04	11	30	
Bis(2-chloroethoxy)methane	12.58	5.0	20	0	62.9	39-88	13.24	5.11	30	
Bis(2-chloroethyl)ether	41.5	5.0	20	0	208	36-91	41.56	0.144	30	S
Bis(2-chloroisopropyl)ether	10.99	5.0	20	0	55	33-83	11.57	5.14	30	
Bis(2-ethylhexyl)phthalate	16.54	5.0	20	0	82.7	39-113	17.97	8.29	30	
Butyl benzyl phthalate	14.94	5.0	20	0	74.7	49-97	11.87	22.9	30	
Carbazole	17.45	5.0	20	2.83	73.1	59-92	19.67	12	30	
Chrysene	16.07	5.0	20	0	80.4	55-92	16.63	3.43	30	
Dibenzo(a,h)anthracene	15.58	5.0	20	0	77.9	47-100	15.8	1.4	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **167999** Instrument ID **SVMS8** Method: **SW846 8270D**

Dibenzofuran	45.35	5.0	20	43.06	11.4	44-89	48.11	5.91	30	S
Diethyl phthalate	13.16	5.0	20	0	65.8	54-95	15.2	14.4	30	
Dimethyl phthalate	13.87	5.0	20	0	69.4	51-92	14.61	5.2	30	
Di-n-butyl phthalate	14.67	5.0	20	0	73.4	57-98	18.09	20.9	30	
Di-n-octyl phthalate	14.32	5.0	20	0	71.6	36-117	17.59	20.5	30	
Fluoranthene	16.76	5.0	20	0.11	83.2	59-93	18.72	11	30	
Fluorene	33.42	5.0	20	28.31	25.6	47-91	35.56	6.2	30	S
Hexachlorobenzene	14.98	5.0	20	0	74.9	53-89	16.88	11.9	30	
Hexachlorobutadiene	9.16	5.0	20	0	45.8	11-83	8.57	6.66	30	
Hexachlorocyclopentadiene	5.43	5.0	20	0	27.2	14-75	7.44	31.2	30	R
Hexachloroethane	9.28	5.0	20	0	46.4	10-85	8.5	8.77	30	
Indeno(1,2,3-cd)pyrene	14.97	5.0	20	0	74.8	46-102	14.68	1.96	30	
Isophorone	12.79	5.0	20	0	64	42-90	13.56	5.84	30	
Naphthalene	236	5.0	20	251.5	-77.4	26-78	249.9	5.73	30	SEO
Nitrobenzene	11.4	5.0	20	0	57	38-86	12.13	6.2	30	
N-Nitrosodi-n-propylamine	12.38	5.0	20	0	61.9	39-95	12.92	4.27	30	
N-Nitrosodiphenylamine	12.06	5.0	20	0	60.3	47-94	13.97	14.7	30	
Pentachlorophenol	17.81	5.0	20	0	89	37-94	19.31	8.08	30	
Phenanthrene	23.9	5.0	20	10.16	68.7	51-90	25.74	7.41	30	
Phenol	5.94	5.0	20	0	29.7	10-40	6.58	10.2	30	
Pyrene	13.36	5.0	20	0	66.8	48-98	12.31	8.18	30	
Surr: 2,4,6-Tribromophenol	*31.38*	0	*50*	0	*62.8*	*27-83*	35.63	*12.7*	*40*	
Surr: 2-Fluorobiphenyl	*31.63*	0	*50*	0	*63.3*	*26-79*	32.09	*1.44*	*40*	
Surr: 2-Fluorophenol	*18.09*	0	*50*	0	*36.2*	*13-56*	20.13	*10.7*	*40*	
Surr: 4-Terphenyl-d14	*32.73*	0	*50*	0	*65.5*	*43-106*	28.07	*15.3*	*40*	
Surr: Nitrobenzene-d5	*28.12*	0	*50*	0	*56.2*	*29-80*	30.85	*9.26*	*40*	
Surr: Phenol-d6	*13.63*	0	*50*	0	*27.3*	*10-35*	15.33	*11.7*	*40*	

The following samples were analyzed in this batch:

20111402-01B	20111402-03B	20111402-04B
20111402-06B	20111402-09B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303043b** Instrument ID **VMS7** Method: **SW8260C**

MBLK	Sample ID: **VBLKW1-201119-R303043b**			Units: **µg/L**		Analysis Date: **11/19/2020 12:05 PM**			
Client ID:	Run ID: **VMS7_201119A**			SeqNo: **6914678**		Prep Date:		DF: **1**	

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	1.0								
1,1,2,2-Tetrachloroethane	U	1.0								
1,1,2-Trichloroethane	U	1.0								
1,1,2-Trichlorotrifluoroethane	U	1.0								
1,1-Dichloroethane	U	1.0								
1,1-Dichloroethene	U	1.0								
1,2,4-Trichlorobenzene	U	1.0								
1,2-Dibromo-3-chloropropane	U	1.0								
1,2-Dibromoethane	U	1.0								
1,2-Dichlorobenzene	U	1.0								
1,2-Dichloroethane	U	1.0								
1,2-Dichloropropane	U	1.0								
1,3-Dichlorobenzene	U	1.0								
1,4-Dichlorobenzene	U	1.0								
2-Butanone	U	5.0								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	1.0								
Acetone	U	10								
Benzene	U	1.0								
Bromodichloromethane	U	1.0								
Bromoform	U	1.0								
Bromomethane	U	1.0								
Carbon disulfide	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroethane	U	1.0								
Chloroform	U	1.0								
Chloromethane	U	1.0								
cis-1,2-Dichloroethene	U	1.0								
cis-1,3-Dichloropropene	U	1.0								
Cyclohexane	U	2.0								
Dibromochloromethane	U	1.0								
Dichlorodifluoromethane	U	1.0								
Ethylbenzene	U	1.0								
Isopropylbenzene	U	1.0								
Methyl acetate	U	2.0								
Methyl tert-butyl ether	U	1.0								
Methylcyclohexane	U	1.0								
Methylene chloride	U	5.0								
Styrene	U	1.0								
Tetrachloroethene	U	1.0								
Toluene	U	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R303043b** Instrument ID **VMS7** Method: **SW8260C**

trans-1,2-Dichloroethene	U	1.0					
trans-1,3-Dichloropropene	U	1.0					
Trichloroethene	U	1.0					
Trichlorofluoromethane	U	1.0					
Vinyl chloride	U	1.0					
Xylenes, Total	U	3.0					
Surr: 1,2-Dichloroethane-d4	*20.8*	0	*20*	0	*104*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.26*	0	*20*	0	*91.3*	*80-110*	0
Surr: Dibromofluoromethane	*20.28*	0	*20*	0	*101*	*85-115*	0
Surr: Toluene-d8	*19.72*	0	*20*	0	*98.6*	*85-110*	0

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303043b** Instrument ID **VMS7** Method: **SW8260C**

LCS Sample ID: **VLCSW1-201119-R303043b** Units: **µg/L** Analysis Date: **11/19/2020 11:15 AM**
Client ID: Run ID: **VMS7_201119A** SeqNo: **6914677** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.87	1.0	20	0	99.4	75-130	0			
1,1,2,2-Tetrachloroethane	20.92	1.0	20	0	105	75-130	0			
1,1,2-Trichloroethane	21.19	1.0	20	0	106	75-125	0			
1,1-Dichloroethane	21.35	1.0	20	0	107	68-142	0			
1,1-Dichloroethene	21.3	1.0	20	0	106	70-145	0			
1,2,4-Trichlorobenzene	17.93	1.0	20	0	89.6	70-135	0			
1,2-Dibromo-3-chloropropane	21.27	1.0	20	0	106	60-130	0			
1,2-Dibromoethane	22.01	1.0	20	0	110	67-155	0			
1,2-Dichlorobenzene	20.7	1.0	20	0	104	70-130	0			
1,2-Dichloroethane	20.15	1.0	20	0	101	78-125	0			
1,2-Dichloropropane	19.41	1.0	20	0	97	75-125	0			
1,3-Dichlorobenzene	20.75	1.0	20	0	104	75-130	0			
1,4-Dichlorobenzene	21.61	1.0	20	0	108	75-130	0			
2-Butanone	21.2	5.0	20	0	106	55-150	0			
2-Hexanone	20.63	5.0	20	0	103	60-135	0			
4-Methyl-2-pentanone	35.35	1.0	20	0	177	77-178	0			
Acetone	23.67	10	20	0	118	60-160	0			
Benzene	20.73	1.0	20	0	104	70-130	0			
Bromodichloromethane	20.52	1.0	20	0	103	75-125	0			
Bromoform	18.16	1.0	20	0	90.8	60-125	0			
Bromomethane	19.5	1.0	20	0	97.5	30-185	0			
Carbon disulfide	21.48	1.0	20	0	107	60-165	0			
Carbon tetrachloride	18.12	1.0	20	0	90.6	65-140	0			
Chlorobenzene	21.01	1.0	20	0	105	80-120	0			
Chloroethane	34.48	1.0	20	0	172	31-172	0			S
Chloroform	19.32	1.0	20	0	96.6	66-135	0			
Chloromethane	17.54	1.0	20	0	87.7	46-148	0			
cis-1,2-Dichloroethene	22.32	1.0	20	0	112	75-134	0			
cis-1,3-Dichloropropene	20.86	1.0	20	0	104	70-130	0			
Dibromochloromethane	20.47	1.0	20	0	102	60-115	0			
Dichlorodifluoromethane	25.24	1.0	20	0	126	20-120	0			S
Ethylbenzene	20.7	1.0	20	0	104	76-123	0			
Isopropylbenzene	22.19	1.0	20	0	111	80-127	0			
Methyl tert-butyl ether	21.38	1.0	20	0	107	68-129	0			
Methylene chloride	19.16	5.0	20	0	95.8	72-125	0			
Styrene	23.99	1.0	20	0	120	79-117	0			S
Tetrachloroethene	20.56	1.0	20	0	103	68-166	0			
Toluene	21	1.0	20	0	105	76-125	0			
trans-1,2-Dichloroethene	20.27	1.0	20	0	101	80-140	0			
trans-1,3-Dichloropropene	22.38	1.0	20	0	112	56-132	0			
Trichloroethene	20.68	1.0	20	0	103	77-125	0			
Trichlorofluoromethane	16.11	1.0	20	0	80.6	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R303043b** Instrument ID **VMS7** Method: **SW8260C**

Vinyl chloride	21.04	1.0	20	0	105	50-136	0
Xylenes, Total	64.16	3.0	60	0	107	76-127	0
Surr: 1,2-Dichloroethane-d4	*20.17*	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.49*	0	*20*	0	*102*	*80-110*	0
Surr: Dibromofluoromethane	*20.47*	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*20.55*	0	*20*	0	*103*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303043b** Instrument ID **VMS7** Method: **SW8260C**

MS Sample ID: **20111020-01A MS** Units: **µg/L** Analysis Date: **11/19/2020 06:57 PM**
Client ID: Run ID: **VMS7_201119A** SeqNo: **6917296** Prep Date: DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1578	25	500	1041	107	75-130	0			
1,1,2,2-Tetrachloroethane	563	25	500	0	113	75-130	0			
1,1,2-Trichloroethane	549	25	500	0	110	75-125	0			
1,1-Dichloroethane	691.8	25	500	58.25	127	68-142	0			
1,1-Dichloroethene	760	25	500	101.2	132	70-145	0			
1,2,4-Trichlorobenzene	486.2	25	500	0	97.2	70-135	0			
1,2-Dibromo-3-chloropropane	496	25	500	0	99.2	60-130	0			
1,2-Dibromoethane	554.8	25	500	0	111	67-155	0			
1,2-Dichlorobenzene	502	25	500	0	100	70-130	0			
1,2-Dichloroethane	578.5	25	500	0	116	78-125	0			
1,2-Dichloropropane	536.8	25	500	0	107	75-125	0			
1,3-Dichlorobenzene	509.8	25	500	0	102	75-130	0			
1,4-Dichlorobenzene	524.8	25	500	0	105	75-130	0			
2-Butanone	590.2	120	500	0	118	55-150	0			
2-Hexanone	539.2	120	500	0	108	60-135	0			
4-Methyl-2-pentanone	924	25	500	0	185	77-178	0			S
Acetone	623.8	250	500	0	125	60-160	0			
Benzene	582.8	25	500	0	117	70-130	0			
Bromodichloromethane	590.2	25	500	0	118	75-125	0			
Bromoform	452.8	25	500	0	90.6	60-125	0			
Bromomethane	2715	25	500	0	543	30-185	0			SE
Carbon disulfide	664	25	500	0	133	60-165	0			
Carbon tetrachloride	547	25	500	0	109	65-140	0			
Chlorobenzene	592.8	25	500	44	110	80-120	0			
Chloroethane	1002	25	500	0	200	31-172	0			S
Chloroform	563.2	25	500	0	113	66-135	0			
Chloromethane	585	25	500	6.75	116	46-148	0			
cis-1,2-Dichloroethene	829.5	25	500	176.2	131	75-134	0			
cis-1,3-Dichloropropene	552.2	25	500	0	110	70-130	0			
Dibromochloromethane	526.2	25	500	0	105	60-115	0			
Dichlorodifluoromethane	900	25	500	0	180	20-120	0			S
Ethylbenzene	534.8	25	500	0	107	76-123	0			
Isopropylbenzene	552.2	25	500	0	110	80-127	0			
Methyl tert-butyl ether	567.2	25	500	0	113	68-129	0			
Methylene chloride	600.8	120	500	0	120	72-125	0			
Styrene	621.5	25	500	0	124	79-117	0			S
Tetrachloroethene	588.8	25	500	48	108	68-166	0			
Toluene	553	25	500	0	111	76-125	0			
trans-1,2-Dichloroethene	601.5	25	500	0	120	80-140	0			
trans-1,3-Dichloropropene	558	25	500	0	112	56-132	0			
Trichloroethene	567.8	25	500	9.75	112	77-125	0			
Trichlorofluoromethane	539.5	25	500	0	108	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R303043b** Instrument ID **VMS7** Method: **SW8260C**

Vinyl chloride	657.2	25	500	0	131	50-136	0
Xylenes, Total	1660	75	1500	0	111	76-127	0
Surr: 1,2-Dichloroethane-d4	*552.8*	0	*500*	0	*111*	*75-120*	0
Surr: 4-Bromofluorobenzene	*508.8*	0	*500*	0	*102*	*80-110*	0
Surr: Dibromofluoromethane	*557.2*	0	*500*	0	*111*	*85-115*	0
Surr: Toluene-d8	*504.8*	0	*500*	0	*101*	*85-110*	0

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303043b** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **20111020-01A MSD** Units: **µg/L** Analysis Date: **11/19/2020 07:14 PM**
Client ID: Run ID: **VMS7_201119A** SeqNo: **6917297** Prep Date: DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1656	25	500	1041	123	75-130	1578	4.85	30	
1,1,2,2-Tetrachloroethane	559.5	25	500	0	112	75-130	563	0.624	30	
1,1,2-Trichloroethane	567.2	25	500	0	113	75-125	549	3.27	30	
1,1-Dichloroethane	675.5	25	500	58.25	123	68-142	691.8	2.38	30	
1,1-Dichloroethene	763.8	25	500	101.2	132	70-145	760	0.492	30	
1,2,4-Trichlorobenzene	511.8	25	500	0	102	70-135	486.2	5.11	30	
1,2-Dibromo-3-chloropropane	547.5	25	500	0	110	60-130	496	9.87	30	
1,2-Dibromoethane	573.2	25	500	0	115	67-155	554.8	3.28	30	
1,2-Dichlorobenzene	526.5	25	500	0	105	70-130	502	4.76	30	
1,2-Dichloroethane	583	25	500	0	117	78-125	578.5	0.775	30	
1,2-Dichloropropane	547.2	25	500	0	109	75-125	536.8	1.94	30	
1,3-Dichlorobenzene	541.8	25	500	0	108	75-130	509.8	6.09	30	
1,4-Dichlorobenzene	545	25	500	0	109	75-130	524.8	3.79	30	
2-Butanone	581	120	500	0	116	55-150	590.2	1.58	30	
2-Hexanone	559	120	500	0	112	60-135	539.2	3.6	30	
4-Methyl-2-pentanone	942.5	25	500	0	188	77-178	924	1.98	30	S
Acetone	624.8	250	500	0	125	60-160	623.8	0.16	30	
Benzene	597.5	25	500	0	120	70-130	582.8	2.5	30	
Bromodichloromethane	607.8	25	500	0	122	75-125	590.2	2.92	30	
Bromoform	464.2	25	500	0	92.8	60-125	452.8	2.51	30	
Bromomethane	3995	25	500	0	799	30-185	2715	38.2	30	SRE
Carbon disulfide	668	25	500	0	134	60-165	664	0.601	30	
Carbon tetrachloride	546	25	500	0	109	65-140	547	0.183	30	
Chlorobenzene	605	25	500	44	112	80-120	592.8	2.05	30	
Chloroethane	1013	25	500	0	203	31-172	1002	1.04	30	S
Chloroform	559.5	25	500	0	112	66-135	563.2	0.668	30	
Chloromethane	558.2	25	500	6.75	110	46-148	585	4.68	30	
cis-1,2-Dichloroethene	822.8	25	500	176.2	129	75-134	829.5	0.817	30	
cis-1,3-Dichloropropene	555.2	25	500	0	111	70-130	552.2	0.542	30	
Dibromochloromethane	539.5	25	500	0	108	60-115	526.2	2.49	30	
Dichlorodifluoromethane	907	25	500	0	181	20-120	900	0.775	30	S
Ethylbenzene	555	25	500	0	111	76-123	534.8	3.72	30	
Isopropylbenzene	579.8	25	500	0	116	80-127	552.2	4.86	30	
Methyl tert-butyl ether	573.5	25	500	0	115	68-129	567.2	1.1	30	
Methylene chloride	582	120	500	0	116	72-125	600.8	3.17	30	
Styrene	623.8	25	500	0	125	79-117	621.5	0.361	30	S
Tetrachloroethene	601	25	500	48	111	68-166	588.8	2.06	30	
Toluene	567.5	25	500	0	114	76-125	553	2.59	30	
trans-1,2-Dichloroethene	605.8	25	500	0	121	80-140	601.5	0.704	30	
trans-1,3-Dichloropropene	561	25	500	0	112	56-132	558	0.536	30	
Trichloroethene	579.2	25	500	9.75	114	77-125	567.8	2.01	30	
Trichlorofluoromethane	528.2	25	500	0	106	60-140	539.5	2.11	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303043b**	Instrument ID **VMS7**		Method: **SW8260C**						
Vinyl chloride	668.8	25	500	0	134	50-136	657.2	1.73	30
Xylenes, Total	1676	75	1500	0	112	76-127	1660	0.96	30
Surr: 1,2-Dichloroethane-d4	*560.2*	0	*500*	0	*112*	*75-120*	552.8	*1.35*	*30*
Surr: 4-Bromofluorobenzene	*509.2*	0	*500*	0	*102*	*80-110*	508.8	*0.0982*	*30*
Surr: Dibromofluoromethane	*542.2*	0	*500*	0	*108*	*85-115*	557.2	*2.73*	*30*
Surr: Toluene-d8	*497.2*	0	*500*	0	*99.4*	*85-110*	504.8	*1.5*	*30*

The following samples were analyzed in this batch:

20111402-01A	20111402-02A	20111402-03A
20111402-04A	20111402-05A	20111402-06A
20111402-07A	20111402-10A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

MBLK	Sample ID: **VBLKW1-201120-R303160A**				Units: **µg/L**		Analysis Date: **11/20/2020 01:57 PM**			
Client ID:		Run ID: **VMS10_201120A**			SeqNo: **6920112**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	1.0								
1,1,2,2-Tetrachloroethane	U	1.0								
1,1,2-Trichloroethane	U	1.0								
1,1,2-Trichlorotrifluoroethane	U	1.0								
1,1-Dichloroethane	U	1.0								
1,1-Dichloroethene	U	1.0								
1,2,4-Trichlorobenzene	U	1.0								
1,2-Dibromo-3-chloropropane	U	1.0								
1,2-Dibromoethane	U	1.0								
1,2-Dichlorobenzene	U	1.0								
1,2-Dichloroethane	U	1.0								
1,2-Dichloropropane	U	1.0								
1,3-Dichlorobenzene	U	1.0								
1,4-Dichlorobenzene	U	1.0								
2-Butanone	U	5.0								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	1.0								
Acetone	U	10								
Benzene	U	1.0								
Bromodichloromethane	U	1.0								
Bromoform	U	1.0								
Bromomethane	U	1.0								
Carbon disulfide	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroethane	U	1.0								
Chloroform	U	1.0								
Chloromethane	U	1.0								
cis-1,2-Dichloroethene	U	1.0								
cis-1,3-Dichloropropene	U	1.0								
Cyclohexane	U	2.0								
Dibromochloromethane	U	1.0								
Dichlorodifluoromethane	U	1.0								
Ethylbenzene	U	1.0								
Isopropylbenzene	U	1.0								
Methyl acetate	U	2.0								
Methyl tert-butyl ether	U	1.0								
Methylcyclohexane	U	1.0								
Methylene chloride	U	5.0								
Styrene	U	1.0								
Tetrachloroethene	U	1.0								
Toluene	U	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

trans-1,2-Dichloroethene	U	1.0					
trans-1,3-Dichloropropene	U	1.0					
Trichloroethene	U	1.0					
Trichlorofluoromethane	U	1.0					
Vinyl chloride	U	1.0					
Xylenes, Total	U	3.0					
Surr: 1,2-Dichloroethane-d4	*18.62*	0	*20*	0	*93.1*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.58*	0	*20*	0	*92.9*	*80-110*	0
Surr: Dibromofluoromethane	*20.35*	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*18.08*	0	*20*	0	*90.4*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

LCS	Sample ID: **VLCSW1-201120-R303160A**				Units: **µg/L**			Analysis Date: **11/20/2020 01:16 PM**		
Client ID:		Run ID: **VMS10_201120A**			SeqNo: **6920111**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22.01	1.0	20	0	110	75-130	0			
1,1,2,2-Tetrachloroethane	20.13	1.0	20	0	101	75-130	0			
1,1,2-Trichloroethane	20.05	1.0	20	0	100	75-125	0			
1,1-Dichloroethane	22.83	1.0	20	0	114	68-142	0			
1,1-Dichloroethene	21.48	1.0	20	0	107	70-145	0			
1,2,4-Trichlorobenzene	20.01	1.0	20	0	100	70-135	0			
1,2-Dibromo-3-chloropropane	18.7	1.0	20	0	93.5	60-130	0			
1,2-Dibromoethane	21.08	1.0	20	0	105	67-155	0			
1,2-Dichlorobenzene	19.99	1.0	20	0	100	70-130	0			
1,2-Dichloroethane	20.13	1.0	20	0	101	78-125	0			
1,2-Dichloropropane	21.87	1.0	20	0	109	75-125	0			
1,3-Dichlorobenzene	20.63	1.0	20	0	103	75-130	0			
1,4-Dichlorobenzene	19.83	1.0	20	0	99.2	75-130	0			
2-Butanone	18.69	5.0	20	0	93.4	55-150	0			
2-Hexanone	16.45	5.0	20	0	82.2	60-135	0			
4-Methyl-2-pentanone	22.94	1.0	20	0	115	77-178	0			
Acetone	18.69	10	20	0	93.4	60-160	0			
Benzene	21.17	1.0	20	0	106	70-130	0			
Bromodichloromethane	22.63	1.0	20	0	113	75-125	0			
Bromoform	17.52	1.0	20	0	87.6	60-125	0			
Bromomethane	79.85	1.0	20	0	399	30-185	0			S
Carbon disulfide	23.62	1.0	20	0	118	60-165	0			
Carbon tetrachloride	22.26	1.0	20	0	111	65-140	0			
Chlorobenzene	19.88	1.0	20	0	99.4	80-120	0			
Chloroethane	32.02	1.0	20	0	160	31-172	0			
Chloroform	22.7	1.0	20	0	114	66-135	0			
Chloromethane	18.28	1.0	20	0	91.4	46-148	0			
cis-1,2-Dichloroethene	22.33	1.0	20	0	112	75-134	0			
cis-1,3-Dichloropropene	20.97	1.0	20	0	105	70-130	0			
Dibromochloromethane	19.2	1.0	20	0	96	60-115	0			
Dichlorodifluoromethane	24.81	1.0	20	0	124	20-120	0			S
Ethylbenzene	19.75	1.0	20	0	98.8	76-123	0			
Isopropylbenzene	21.43	1.0	20	0	107	80-127	0			
Methyl tert-butyl ether	21.9	1.0	20	0	110	68-129	0			
Methylene chloride	21.6	5.0	20	0	108	72-125	0			
Styrene	22.04	1.0	20	0	110	79-117	0			
Tetrachloroethene	21.14	1.0	20	0	106	68-166	0			
Toluene	18.81	1.0	20	0	94	76-125	0			
trans-1,2-Dichloroethene	22.2	1.0	20	0	111	80-140	0			
trans-1,3-Dichloropropene	17.27	1.0	20	0	86.4	56-132	0			
Trichloroethene	22.46	1.0	20	0	112	77-125	0			
Trichlorofluoromethane	17.92	1.0	20	0	89.6	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

Vinyl chloride	21.62	1.0	20	0	108	50-136	0
Xylenes, Total	59.41	3.0	60	0	99	76-127	0
Surr: 1,2-Dichloroethane-d4	*18.17*	0	*20*	0	*90.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.77*	0	*20*	0	*98.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.97*	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*18.05*	0	*20*	0	*90.2*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **20111134-31A MS** Units: **µg/L** Analysis Date: **11/20/2020 09:29 PM**
Client ID: Run ID: **VMS10_201120A** SeqNo: **6920134** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1154	50	1000	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	948	50	1000	0	94.8	75-130	0			
1,1,2-Trichloroethane	1010	50	1000	0	101	75-125	0			
1,1-Dichloroethane	1199	50	1000	0	120	68-142	0			
1,1-Dichloroethene	1176	50	1000	0	118	70-145	0			
1,2,4-Trichlorobenzene	913	50	1000	0	91.3	70-135	0			
1,2-Dibromo-3-chloropropane	902.5	50	1000	0	90.2	60-130	0			
1,2-Dibromoethane	1065	50	1000	0	106	67-155	0			
1,2-Dichlorobenzene	972	50	1000	0	97.2	70-130	0			
1,2-Dichloroethane	1012	50	1000	0	101	78-125	0			
1,2-Dichloropropane	1115	50	1000	0	112	75-125	0			
1,3-Dichlorobenzene	1002	50	1000	0	100	75-130	0			
1,4-Dichlorobenzene	965.5	50	1000	0	96.6	75-130	0			
2-Butanone	2460	250	1000	1514	94.6	55-150	0			
2-Hexanone	754	250	1000	0	75.4	60-135	0			
4-Methyl-2-pentanone	1032	50	1000	0	103	77-178	0			
Acetone	939.5	500	1000	29.5	91	60-160	0			
Benzene	1110	50	1000	0	111	70-130	0			
Bromodichloromethane	1142	50	1000	0	114	75-125	0			
Bromoform	853.5	50	1000	0	85.4	60-125	0			
Bromomethane	6142	50	1000	0	614	30-185	0			SE
Carbon disulfide	1294	50	1000	0	129	60-165	0			
Carbon tetrachloride	1224	50	1000	0	122	65-140	0			
Chlorobenzene	1268	50	1000	280	98.8	80-120	0			
Chloroethane	1218	50	1000	0	122	31-172	0			
Chloroform	1196	50	1000	0	120	66-135	0			
Chloromethane	902.5	50	1000	0	90.2	46-148	0			
cis-1,2-Dichloroethene	1145	50	1000	0	114	75-134	0			
cis-1,3-Dichloropropene	990	50	1000	0	99	70-130	0			
Dibromochloromethane	963.5	50	1000	0	96.4	60-115	0			
Dichlorodifluoromethane	1473	50	1000	0	147	20-120	0			S
Ethylbenzene	1004	50	1000	0	100	76-123	0			
Isopropylbenzene	1080	50	1000	0	108	80-127	0			
Methyl tert-butyl ether	1082	50	1000	0	108	68-129	0			
Methylene chloride	1119	250	1000	0	112	72-125	0			
Styrene	1074	50	1000	0	107	79-117	0			
Tetrachloroethene	1124	50	1000	0	112	68-166	0			
Toluene	960	50	1000	0	96	76-125	0			
trans-1,2-Dichloroethene	1181	50	1000	0	118	80-140	0			
trans-1,3-Dichloropropene	800	50	1000	0	80	56-132	0			
Trichloroethene	1204	50	1000	0	120	77-125	0			
Trichlorofluoromethane	1016	50	1000	0	102	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

Vinyl chloride	1234	50	1000	0	123	50-136	0
Xylenes, Total	2958	150	3000	0	98.6	76-127	0
Surr: 1,2-Dichloroethane-d4	*913*	0	*1000*	0	*91.3*	*75-120*	0
Surr: 4-Bromofluorobenzene	*988*	0	*1000*	0	*98.8*	*80-110*	0
Surr: Dibromofluoromethane	*1048*	0	*1000*	0	*105*	*85-115*	0
Surr: Toluene-d8	*903*	0	*1000*	0	*90.3*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

MSD Sample ID: **20111134-31A MSD** Units: **µg/L** Analysis Date: **11/20/2020 09:49 PM**
Client ID: Run ID: **VMS10_201120A** SeqNo: **6920135** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1216	50	1000	0	122	75-130	1154	5.19	30	
1,1,2,2-Tetrachloroethane	968	50	1000	0	96.8	75-130	948	2.09	30	
1,1,2-Trichloroethane	1018	50	1000	0	102	75-125	1010	0.838	30	
1,1-Dichloroethane	1218	50	1000	0	122	68-142	1199	1.57	30	
1,1-Dichloroethene	1170	50	1000	0	117	70-145	1176	0.469	30	
1,2,4-Trichlorobenzene	967.5	50	1000	0	96.8	70-135	913	5.8	30	
1,2-Dibromo-3-chloropropane	921	50	1000	0	92.1	60-130	902.5	2.03	30	
1,2-Dibromoethane	1079	50	1000	0	108	67-155	1065	1.31	30	
1,2-Dichlorobenzene	1016	50	1000	0	102	70-130	972	4.48	30	
1,2-Dichloroethane	1034	50	1000	0	103	78-125	1012	2.1	30	
1,2-Dichloropropane	1168	50	1000	0	117	75-125	1115	4.64	30	
1,3-Dichlorobenzene	1056	50	1000	0	106	75-130	1002	5.3	30	
1,4-Dichlorobenzene	1020	50	1000	0	102	75-130	965.5	5.49	30	
2-Butanone	2486	250	1000	1514	97.2	55-150	2460	1.05	30	
2-Hexanone	762	250	1000	0	76.2	60-135	754	1.06	30	
4-Methyl-2-pentanone	1043	50	1000	0	104	77-178	1032	1.11	30	
Acetone	968.5	500	1000	29.5	93.9	60-160	939.5	3.04	30	
Benzene	1136	50	1000	0	114	70-130	1110	2.32	30	
Bromodichloromethane	1188	50	1000	0	119	75-125	1142	3.95	30	
Bromoform	874.5	50	1000	0	87.4	60-125	853.5	2.43	30	
Bromomethane	6106	50	1000	0	611	30-185	6142	0.588	30	SE
Carbon disulfide	1322	50	1000	0	132	60-165	1294	2.06	30	
Carbon tetrachloride	1277	50	1000	0	128	65-140	1224	4.24	30	
Chlorobenzene	1296	50	1000	280	102	80-120	1268	2.15	30	
Chloroethane	1202	50	1000	0	120	31-172	1218	1.32	30	
Chloroform	1230	50	1000	0	123	66-135	1196	2.72	30	
Chloromethane	917	50	1000	0	91.7	46-148	902.5	1.59	30	
cis-1,2-Dichloroethene	1188	50	1000	0	119	75-134	1145	3.69	30	
cis-1,3-Dichloropropene	1046	50	1000	0	105	70-130	990	5.45	30	
Dibromochloromethane	964	50	1000	0	96.4	60-115	963.5	0.0519	30	
Dichlorodifluoromethane	1460	50	1000	0	146	20-120	1473	0.921	30	S
Ethylbenzene	1032	50	1000	0	103	76-123	1004	2.75	30	
Isopropylbenzene	1108	50	1000	0	111	80-127	1080	2.61	30	
Methyl tert-butyl ether	1088	50	1000	0	109	68-129	1082	0.645	30	
Methylene chloride	1141	250	1000	0	114	72-125	1119	1.95	30	
Styrene	1108	50	1000	0	111	79-117	1074	3.16	30	
Tetrachloroethene	1146	50	1000	0	115	68-166	1124	2.03	30	
Toluene	990.5	50	1000	0	99	76-125	960	3.13	30	
trans-1,2-Dichloroethene	1226	50	1000	0	123	80-140	1181	3.78	30	
trans-1,3-Dichloropropene	818	50	1000	0	81.8	56-132	800	2.22	30	
Trichloroethene	1218	50	1000	0	122	77-125	1204	1.2	30	
Trichlorofluoromethane	1054	50	1000	0	105	60-140	1016	3.67	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Golder Associates Inc.
Work Order: 20111402
Project: Golder (Phase II Eaton Shenandoah)

QC BATCH REPORT

Batch ID: **R303160A** Instrument ID **VMS10** Method: **SW8260C**

Vinyl chloride	1216	50	1000	0	122	50-136	1234	1.55	30
Xylenes, Total	3072	150	3000	0	102	76-127	2958	3.76	30
Surr: 1,2-Dichloroethane-d4	*898*	0	*1000*	0	*89.8*	*75-120*	913	*1.66*	*30*
Surr: 4-Bromofluorobenzene	*990.5*	0	*1000*	0	*99*	*80-110*	988	*0.253*	*30*
Surr: Dibromofluoromethane	*1026*	0	*1000*	0	*103*	*85-115*	1048	*2.12*	*30*
Surr: Toluene-d8	*887.5*	0	*1000*	0	*88.8*	*85-110*	903	*1.73*	*30*

The following samples were analyzed in this batch: 20111402-08A 20111402-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Group, USA

Sample Receipt Checklist

Client Name: **GOLDER-MO** Date/Time Received: **14-Nov-20 11:00**

Work Order: **20111402** Received by: **MJG**

Checklist completed by Matthew Gaylord (eSignature) 16-Nov-20 (Date) Reviewed by: Gary Byar (eSignature) 16-Nov-20 (Date)

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.0/4.0C	IR1	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	11/16/2020 10:17:07 AM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Group, USA

Date: 25-Nov-20

Client: Golder Associates Inc.
Project: Golder (Phase II Eaton Shenandoah)
WorkOrder: **20111402**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
mg/L	Milligrams per Liter

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Middletown, PA +1 717 944 5541
Spring City, PA +1 610 948 4903
Salt Lake City, UT +1 801 266 7700
South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 50607

ALS Project Manager:

ALS Work Order #: 2011407

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	20394143	Project Name	Phase II Eaton Shenandoah	A	SVOC
Work Order		Project Number		B	Metals by ICP-MS (dissolved)
Company Name	Golder Associates Inc.	Bill To Company	Golder Associates Inc	C	VOC
Send Report To	AnneFaeth-Boyd@golder.com	Invoice Attn		D	
Address	13515 Barrett Parkway Drive Suite 260	Address	13515 Barrett Parkway Drive Suite 260	E	
				F	
City/State/Zip	Ballwin/MO/63021	City/State/Zip	Ballwin/MO/63021	G	
Phone	314-984-8800	Phone	314-984-8800	H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	2020-BH-01 GW	11/12/20	1810	Water	1,2	6	X	X	X								
2	2020-BH-02 GW	11/13/20	~~1415~~ 1215														
3	2020-BH-03 GW	11/12/20	1115														
4	2020-BH-04 GW	11/12/20	1340														
5	2020-BH-05 GW	11/13/20	0835														
6	2020-BH-06 GW	11/12/20	1405														
7	2020-BH-07 GW	11/13/20	0730														
8	2020-BH-08 GW	11/13/20	1145			X5											
9	2020-BH-09 GW	11/12/20	1840			~~X~~ 6											
10	Trip Blank	—	—	—													

Sampler(s) Please Print & Sign

Shipment Method: Fedex

Turnaround Time in Business Days (BD): ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other

Results Due Date:

Relinquished by: Eric Schneider	Date: 11/13/20	Time: 1700	Received by:		
Relinquished by:	Date: 11/13/20	Time: 1700	Received by (Laboratory):	Date: 11/14/20	Time: 11:00
Logged by (Laboratory): MTG	Date: 11/16/20	Time: 10:16	Checked by (Laboratory): GRB		

Notes: All Metals samples field filtered

Cooler ID	Cooler Temp
	4.0°C
	TRI
	PH22

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: A. Faeth-Boyd
Project Name: Eaton Shenandoah Deact and PH2 IA
Project Number: 20394143
Reviewer: A. Muehlfarth
Validation Date: 12/4/2020

Laboratory: ALS Environmental
SDG #: 20111402
Analytical Method (type and no.): Metals (SW6020B), Mercury (SW7470A)
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐
Sample Names 2020-BH-01-GW, 2020-BH-02-GW, 2020-BH-03-GW, 2020-BH-04-GW, 2020-BH-05-GW, 2020-BH-06-GW, 2020-BH-07-GW, 2020-BH-08-GW, 2020-BH-09-GW

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			11/12/2020 - 11/13/2020
b) Sampling team indicated?	x			EMS
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?		x		
g) Field parameters collected (note types)?	x			pH, Spec. Cond., Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?		x		

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?		x		
g) Were any matrix problems noted?	x			See Notes

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☒	
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☐	☐	☒	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper analytes included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?				
	☐	☒	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☒	
c) Were lab duplicates analyzed (note original and duplicate samples)?				
	☐	☒	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☒	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name,	☐	☒	☐	
analytes included and concentrations)?				
b) Was the %D within control limits?	☐	☐	☒	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☒	☐	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met?	☒	☐	☐	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met?	☐	☒	☐	See Notes

Comments/Notes:

20111406-02AMS: MS % recovery high for Mercury.

20111406-02AMSD: RPD exceeds limit (30%) for Mercury.

MS/MSD performed on unrelated sample, no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
None.				

Signature: _____ Ann Muhlfeith _____ Date: 11/4/2020

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: A. Faeth-Boyd
Project Name: Eaton Shenandoah Deact and PH2 IA
Project Number: 20394143
Reviewer: A. Muehlfarth
Validation Date: 12/4/2020

Laboratory: ALS Environmental
SDG #: 20111402
Analytical Method (type and no.): SVOCs (SW846 8270D), VOCs (SW8260C)
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐
Sample Names 2020-BH-01-GW, 2020-BH-02-GW, 2020-BH-03-GW, 2020-BH-04-GW, 2020-BH-05-GW, 2020-BH-06-GW, 2020-BH-07-GW, 2020-BH-08-GW, 2020-BH-09-GW, Trip Blank

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			11/12/2020 - 11/13/2020
b) Sampling team indicated?	x			EMS
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			Trip Blank
g) Field parameters collected (note types)?	x			pH, Spec. Cond., Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?	■			

Note Deficiencies: Reduced volume due to limited sample quantity noted for SVOC samples 2020-BH-02-GW, 2020-BH-05-GW, 2020-BH-07-GW, 2020-BH-08-GW.

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?		x		
g) Were any matrix problems noted?	x			See Notes

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☒	
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☐	☒	☐	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper compounds included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☒	☐	See Notes

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☒	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☒	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☒	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☒	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☒	☐	
b) Was the %D within control limits?	☐	☐	☒	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met?	☐	☒	☐	See Notes

Surrogate Spikes	YES	NO	NA	COMMENTS
a) Were surrogate recoveries within control limits?	☐	☒	☐	See Notes
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☒	

Comments/Notes:

LCS Qualifications:

Batch 167999: LCS % recovery high for Bis(2-chloroethyl)ether, associated with samples -01, 03, -04, -06, and -09. Sample results non-detect, no qualification necessary.

Batch R303043b: LCS % recovery high for Chloroethane, Dichlorodifluoromethane, Styrene, associated with samples -01 through -07, -10.

Comments/Notes (continued):

(LCS continued)

(Batch R303043b): Sample results non-detect, no qualification necessary.

Batch R303160A: LCS % recovery high for Bromomethane, Dichlorodifluoromethane, associated with samples -08 and -09.

Sample results non-detect, no qualification necessary.

MS/MSD qualification:

20111358-03B MS: MS % recovery high for 2-Methylnaphthalene, 4-Nitrophenol, Bis(2-chloroethyl)ether, Fluoranthene, Pentachlorophenol; MS % recovery low for Dibenzofuran, Fluorene, Naphthalene.

20111358-03B MSD: MSD % recovery low high for Bis(2-chloroethyl)ether; MSD % recovery low for 1,1`-Biphenyl, Dibenzofuran, Fluorene, Naphthalene; RPD exceeds limit (30%) for Hexachlorocyclopentadiene.

MS/MSD performed on unrelated sample, no qualification necessary.

20111020-01A MS: MS % recovery high for 4-Methyl-2-pentanone, Bromomethane, Chloroethane, Dichlorodifluoromethane, Styrene.

20111020-01A MSD: MSD % recovery high for 4-Methyl-2-pentanone, Bromomethane, Chloroethane, Dichlorodifluoromethane, Styrene; RPD exceeds limit (30%) for Bromomethane.

MS/MSD performed on unrelated sample, no qualification necessary.

20111134-31A MS: MS % recovery high for Bromomethane, Dichlorodifluoromethane.

20111134-31A MSD: MSD % recovery high for Bromomethane, Dichlorodifluoromethane.

MS/MSD performed on unrelated sample, no qualification necessary.

Surrogates:

2020-BH-08-GW: % recovery high for 2,4,6-Tribromophenol, acidic compounds associated with this surrogate are non-detect, no qualification necessary.

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason

Signature: Ann Muehlforth Date: 12/4/2020