

November 19, 2024

Attn: Tim Birk
Somers Property LLC
3390 US Hwy 2 E, Ste 2
Kalispell, MT 59901



RE: Phase II Environmental Site Assessment (ESA)
603 Somers Rd, Somers, MT 59457

Dear Mr. Birk,

Big Sky Civil & Environmental, Inc. (BSCE) hereby submits this abbreviated report which summarizes Phase II investigative activities and analytical findings as completed for the subject property. The activities were performed to determine if certain chemicals of potential concern (COPCs) exist in surface soils, subsurface soils, or in groundwater at the subject site. In the following paragraphs, we describe the areas of assessment, sampling procedures, laboratory analyses completed, and analytical results.

On October 31, 2024, eight (8) test pits were completed at the subject site; the estimated locations are depicted on **Fig. 1**. The first four test pits, TP-01 through TP-04, were excavated to approximately 36" beneath ground surface (bgs). From these test pits, soil samples were collected from 0-6 inches bgs and from 30-36 inches bgs. The last four test pits, TP-05 through TP-08 were excavated to the observed groundwater table, which was encountered at a depth of approximately five feet (5') bgs. From these test pits, groundwater samples were collected.

Soils from the test pits were field-screened using BSCE's photoionization detector (PID). No levels of volatile organic compounds (VOC's) were detected and none of the soils contained olfactory or visual signs of contamination (including but not limited to staining or odors).

The soil and groundwater samples described above were submitted to Energy Laboratories, Inc. in Helena, MT and analyzed for the following:

- Volatile Organic Compounds (VOCs) via EPA Method 8260
- Semi-volatile Organic Compounds (SVOCs) via EPA Method 8270, including:
 - o Phenols
 - o Polycyclic Aromatic Hydrocarbons (PAHs) – Low Level by SIM

Quality Assurance/Quality Control

All sampling was completed in strict accordance with BSCE's standard QA/QC procedures. The following procedures were used during sample collection to provide quality assurance

and quality control (QA/QC), to minimize loss of volatiles, and to maintain the suitability of samples for analysis. Sample collection and analytical procedures were consistent with SW-846: *Test Methods for Evaluating Solid Waste*, November 1986, and updates published by the U.S. EPA. QA/QC methods include but are not limited to:

- All sample containers/preservatives were supplied by a state-certified laboratory. Analyses were performed by a state-certified laboratory.
- All samples were handled in a manner which minimizes the loss of organic compounds to volatilization and biodegradation.
- All samples for analyses were placed in a cooler on ice (at a temperature of 4° C) immediately following collection.
- Chain-of-custody procedures were utilized during sampling and delivery.

Results & Discussion

The attached report as received from the laboratory (H24110085) contains analytical findings for the samples described above; refer to **Table 1** and **Table 2** for results and applicable regulatory limits in tabular format.

Upon review of the results, the groundwater samples contained a detectable concentration of one analyte: methylene chloride, which can be found in agriculturally related pesticide products. Results were as follows: 1.4 ug/L, 1.2 ug/L, 1.3 ug/L, and 1.6 ug/L at TP-05, TP-06, TP-07, and TP-08, respectively. For methylene chloride (AKA dichloromethane), the Montana Department of Environmental Quality (DEQ) numeric water quality standard is 5.0 ug/L; the United States Environmental Protection Agency (US EPA) maximum contaminant limit (MCL) is also 5.0 ug/L, meaning no exceedances of regulatory limits were encountered for the samples. No other detectable concentrations of analytes were reported by the laboratory for the remaining groundwater or soil samples.

Conclusions & Recommendations

No signs of contamination (e.g., staining/odors) were noted during fieldwork (excavation of the test pits). No exceedances of regulatory limits were encountered in soil and groundwater samples collected and analyzed by the laboratory. Therefore, no additional investigation or additional services are recommended.

While it is not considered practicable to test soils and groundwater at every location throughout the subject property, the environmental professional can confidently state that elevated levels of chemicals of potential concern (COPCs) were not encountered at the test pit locations and that widespread contamination of the property does not appear to exist.

Limitations

The scope of work for Phase II investigative services was limited to completion of test holes, collection of samples, analytical testing, data interpretation, and report development. The intent

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of this work was to evaluate potential environmental liabilities associated with former uses of the property and surrounding properties. Information and findings presented in this report are based on conditions observed, given the level of effort authorized, and based on information provided by others. This report does not constitute a guaranty, warranty, or positive assertion as to the presence or absence of site contamination. In addition, the Phase II investigative work was conducted in accordance with the limited scope of work outlined, was conducted in accordance with the accepted industry standards, and did not include an evaluation of all environmental regulations as they may apply to the property. Only those issues presented herein were assessed during the study.

Please do not hesitate to give us a call if you have questions or concerns regarding the findings presented herein.

Respectfully,
Big Sky Civil & Environmental, Inc.



Joseph N. Murphy, P.E.



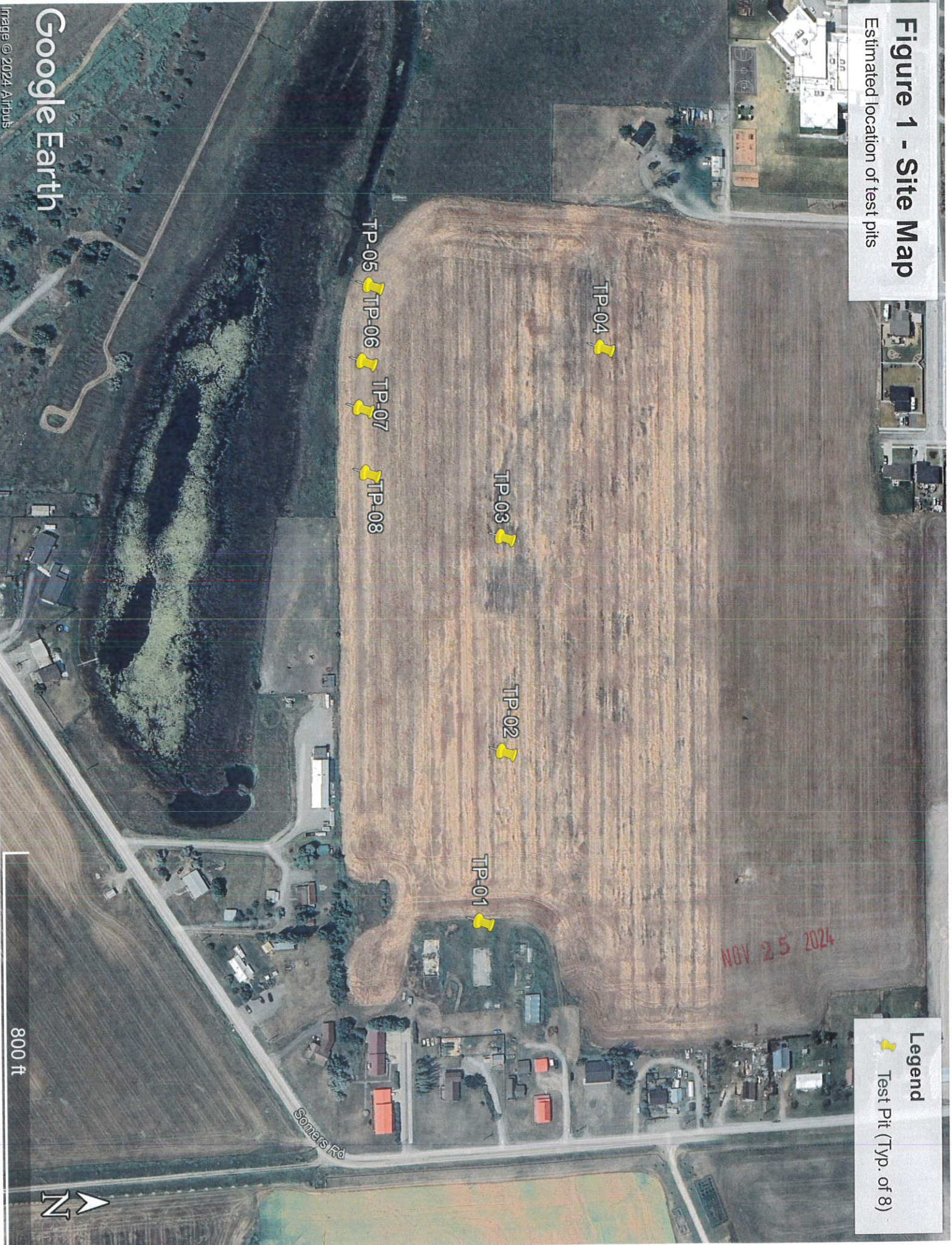
Paxton Ellis, P.E.

Encl. Fig. 1 – Site Map
Table 1 – Analytical Results of Soil Samples
Table 2 – Analytical Results of Groundwater Samples
Analytical Report (Energy Laboratories, Inc.)

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Figure 1 - Site Map

Estimated location of test pits



Google Earth

Image © 2024, Airbus

Table 1 - Analytical Results of Soil Samples

Method: MOISTURE										
Analyte	TP-01 [0-6]	TP-01 [30-36]	TP-02 [0-6]	TP-02 [30-36]	TP-03 [0-6]	TP-03 [30-36]	TP-04 [0-6]	TP-04 [30-36]	Unit	
Moisture	8.7	10.2	18.3	10.4	8.7	2.0	10.1	9.6	wt%	
Method: 8260 - VOLATILE ORGANIC COMPOUNDS										
Analyte	TP-01 [0-6]	TP-01 [30-36]	TP-02 [0-6]	TP-02 [30-36]	TP-03 [0-6]	TP-03 [30-36]	TP-04 [0-6]	TP-04 [30-36]	DEQ RBSL >10' to GW	Units
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
cis-1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Methyl tert-butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Methyl ethyl ketone	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
m+p-Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Method: 8270 - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) - PHENOLS										
Analyte	TP-01 [0-6]	TP-01 [30-36]	TP-02 [0-6]	TP-02 [30-36]	TP-03 [0-6]	TP-03 [30-36]	TP-04 [0-6]	TP-04 [30-36]	DEQ RBSL >10' to GW	Units
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
4-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
m+p-Cresols	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
o-Cresol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Method: 8270 - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) - POLYCYCLIC AROMATIC HYDROCARBONS (PAHS) LOW LEVEL BY SIM										
Analyte	TP-01 [0-6]	TP-01 [30-36]	TP-02 [0-6]	TP-02 [30-36]	TP-03 [0-6]	TP-03 [30-36]	TP-04 [0-6]	TP-04 [30-36]	DEQ RBSL >10' to GW	Units
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Chrysene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	---	mg/Kg

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DEQ RBSL - risk-based screening levels published by Montana DEQ in "Table 1: Petroleum-Release Confirmation Risk-Based Screening Levels (RBSLs) for Soil" of *Montana Risk-Based Corrective Action Guidance for Petroleum Releases* (DEQ, Feb. '24)
 ND indicates a non-detectable concentration was reported by the lab
 --- indicates the regulatory is not included in the table above as a non-detectable concentration was reported by the lab

Table 2 - Analytical Results of Groundwater Samples

Method: 8260 - VOLATILE ORGANIC COMPOUNDS

Analyte	TP-05 GW	TP-06 GW	TP-07 GW	TP-08 GW	DEQ RBSLs	EPA MCLs	Units
Benzene	ND	ND	ND	ND	---	---	µg/L
Bromobenzene	ND	ND	ND	ND	---	---	µg/L
Bromochloromethane	ND	ND	ND	ND	---	---	µg/L
Bromodichloromethane	ND	ND	ND	ND	---	---	µg/L
Bromoform	ND	ND	ND	ND	---	---	µg/L
Bromomethane	ND	ND	ND	ND	---	---	µg/L
Carbon tetrachloride	ND	ND	ND	ND	---	---	µg/L
Chlorobenzene	ND	ND	ND	ND	---	---	µg/L
Chlorodibromomethane	ND	ND	ND	ND	---	---	µg/L
Chloroethane	ND	ND	ND	ND	---	---	µg/L
Chloroform	ND	ND	ND	ND	---	---	µg/L
Chloromethane	ND	ND	ND	ND	---	---	µg/L
1,2-Dibromoethane	ND	ND	ND	ND	---	---	µg/L
2-Chlorotoluene	ND	ND	ND	ND	---	---	µg/L
4-Chlorotoluene	ND	ND	ND	ND	---	---	µg/L
Dibromomethane	ND	ND	ND	ND	---	---	µg/L
1,2-Dichlorobenzene	ND	ND	ND	ND	---	---	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	---	---	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	---	---	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	---	---	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	---	---	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	---	---	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	---	---	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	---	---	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	---	---	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	---	---	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	---	---	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	---	---	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	---	---	µg/L
cis-1,3-Dichloropropene	ND	ND	ND	ND	---	---	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	---	---	µg/L
Ethylbenzene	ND	ND	ND	ND	---	---	µg/L
Methyl ethyl ketone	ND	ND	ND	ND	---	---	µg/L
Methyl tert-butyl ether (MTBE)	ND	ND	ND	ND	5.0	5.0	µg/L
Methylene chloride	1.4	1.2	1.3	1.6	---	---	µg/L
Styrene	ND	ND	ND	ND	---	---	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	---	---	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	---	---	µg/L
Tetrachloroethene	ND	ND	ND	ND	---	---	µg/L
Toluene	ND	ND	ND	ND	---	---	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	---	---	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	---	---	µg/L
Trichloroethene	ND	ND	ND	ND	---	---	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	---	---	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	---	---	µg/L
Vinyl chloride	ND	ND	ND	ND	---	---	µg/L
m+p-Xylenes	ND	ND	ND	ND	---	---	µg/L
o-Xylene	ND	ND	ND	ND	---	---	µg/L
Xylenes, Total	ND	ND	ND	ND	---	---	µg/L

Method: 8270 - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) - PHENOLS

Analyte	TP-05 GW	TP-06 GW	TP-07 GW	TP-08 GW	DEQ RBSLs	EPA MCLs	Units
2,4,5-Trichlorophenol	ND	ND	ND	ND	---	---	µg/L
2,4,6-Trichlorophenol	ND	ND	ND	ND	---	---	µg/L
2,4-Dichlorophenol	ND	ND	ND	ND	---	---	µg/L
2,4-Dimethylphenol	ND	ND	ND	ND	---	---	µg/L
2,4-Dinitrophenol	ND	ND	ND	ND	---	---	µg/L
2-Chlorophenol	ND	ND	ND	ND	---	---	µg/L
2-Nitrophenol	ND	ND	ND	ND	---	---	µg/L
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	---	---	µg/L
4-Chloro-3-methylphenol	ND	ND	ND	ND	---	---	µg/L
4-Chlorophenol	ND	ND	ND	ND	---	---	µg/L
4-Nitrophenol	ND	ND	ND	ND	---	---	µg/L
m+p-Cresols	ND	ND	ND	ND	---	---	µg/L
o-Cresol	ND	ND	ND	ND	---	---	µg/L
Pentachlorophenol	ND	ND	ND	ND	---	---	µg/L
Phenol	ND	ND	ND	ND	---	---	µg/L

DEQ RBSL - Montana Numeric Water Quality Standards published in Circular DEQ-7 (June 2019)

EPA MCLs - Maximum contaminant levels published by EPA in "Regional Screening Level (RSL) Summary Table May 2024"

ND - Non-detectable concentration reported by the laboratory

--- indicates the regulatory limit is not included in the table above as a non-detectable concentration was reported by the lab

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(cont'd) Table 2 - Analytical Results of Groundwater Samples

Analyte	TP-05 GW	TP-06 GW	TP-07 GW	TP-08 GW	DEQ RBSL	EPA MCLs	Units
1-Methylnaphthalene	ND	ND	ND	ND	---	---	µg/L
2-Methylnaphthalene	ND	ND	ND	ND	---	---	µg/L
Acenaphthene	ND	ND	ND	ND	---	---	µg/L
Acenaphthylene	ND	ND	ND	ND	---	---	µg/L
Anthracene	ND	ND	ND	ND	---	---	µg/L
Benzo(a)anthracene	ND	ND	ND	ND	---	---	µg/L
Benzo(a)pyrene	ND	ND	ND	ND	---	---	µg/L
Benzo(b)fluoranthene	ND	ND	ND	ND	---	---	µg/L
Benzo(g,h,i)perylene	ND	ND	ND	ND	---	---	µg/L
Benzo(k)fluoranthene	ND	ND	ND	ND	---	---	µg/L
Chrysene	ND	ND	ND	ND	---	---	µg/L
Dibenzo(a,h)anthracene	ND	ND	ND	ND	---	---	µg/L
Fluoranthene	ND	ND	ND	ND	---	---	µg/L
Fluorene	ND	ND	ND	ND	---	---	µg/L
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	---	---	µg/L
Naphthalene	ND	ND	ND	ND	---	---	µg/L
Phenanthrene	ND	ND	ND	ND	---	---	µg/L
Pyrene	ND	ND	ND	ND	---	---	µg/L

DEQ RBSL - Montana Numeric Water Quality Standards published in Circular DEQ-7 (June 2019)

EPA MCLs - Maximum contaminant levels published by EPA in "Regional Screening Level (RSL) Summary Table May 2024"

ND - Non-detectable concentration reported by the laboratory

--- indicates the regulatory limit is not included in the table above as a non-detectable concentration was reported by the lab

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ANALYTICAL SUMMARY REPORT

November 18, 2024

Big Sky Civil and Environmental
PO Box 3625
Great Falls, MT 59403-3625

Work Order: H24110085 Quote ID: H17717
Project Name: 24AE-Tim Birk Somers Ph 11 ESA

Energy Laboratories Inc Helena MT received the following 14 samples for Big Sky Civil and Environmental on 11/5/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H24110085-001	TP-01 [0-6]	10/31/24 10:05	11/05/24	Soil	Percent Moisture Soil Sonication SW3550C Extraction Semi-Volatile Organic Compounds Low Level PAH by 8270E SIM Volatile Organics, Methanol Extraction SW5035 8260-Volatile Organic Compounds - Short List
H24110085-002	TP-01 [30-36]	10/31/24 10:10	11/05/24	Soil	Same As Above
H24110085-003	TP-02 [0-6]	10/31/24 10:20	11/05/24	Soil	Same As Above
H24110085-004	TP-02 [30-36]	10/31/24 10:25	11/05/24	Soil	Same As Above
H24110085-005	TP-03 [0-6]	10/31/24 10:30	11/05/24	Soil	Same As Above
H24110085-006	TP-03 [30-36]	10/31/24 10:35	11/05/24	Soil	Same As Above
H24110085-007	TP-04 [0-6]	10/31/24 10:40	11/05/24	Soil	Same As Above
H24110085-008	TP-04 [30-36]	10/31/24 10:45	11/05/24	Soil	Same As Above
H24110085-009	TP-05 GW	10/31/24 11:25	11/05/24	Aqueous	Separatory Funnel SW3510C Liquid- Liquid Ext. Semi-Volatile Organic Compounds Low Level PAH by 8270E SIM 8260-Volatile Organic Compounds- Short List
H24110085-010	TP-06 GW	10/31/24 12:00	11/05/24	Aqueous	Same As Above
H24110085-011	TP-07 GW	10/31/24 12:35	11/05/24	Aqueous	Same As Above
H24110085-012	TP-08 GW	10/31/24 13:00	11/05/24	Aqueous	Same As Above
H24110085-013	Trip Blank	10/31/24 11:25	11/05/24	Trip Blank	8260-Volatile Organic Compounds- Short List
H24110085-014	Trip Blank [0-6]	10/31/24 10:05	11/05/24	Trip Blank	Volatile Organics, Methanol Extraction SW5035 8260-Volatile Organic Compounds - Short List

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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ANALYTICAL SUMMARY REPORT

If you have any questions regarding these test results, please contact your Project Manager.



Project Management

Digitally signed by
Ravyn R. Sponholz
Date: 2024.11.18 12:43:40 -07:00

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CLIENT: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Work Order: H24110085

Report Date: 11/18/24

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-001
Client Sample ID: TP-01 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:05
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture	8.7	wt%		0.2		D2974	11/05/24 14:12 / dlm
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Benzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Bromobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Bromochloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Bromodichloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Bromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Carbon tetrachloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Chlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Chloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Chloroform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Chloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
2-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
4-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Chlorodibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,2-Dibromoethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Dibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,2-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,3-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,4-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Dichlorodifluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,1-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,2-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
cis-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,1-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
trans-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,3-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
2,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,1-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
cis-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
trans-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Ethylbenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Methylene chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Methyl ethyl ketone	ND	mg/kg-dry		4.0		SW8260B	11/07/24 15:12 / kmh
Styrene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,1,1,2,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Tetrachloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-001
Client Sample ID: TP-01 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:05
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Xylenes, Total	ND	mg/kg-dry		0.20		SW8260B	11/07/24 15:12 / kmh
Surr: p-Bromofluorobenzene	204	%REC	S	60-143		SW8260B	11/07/24 15:12 / kmh
Surr: Dibromofluoromethane	169	%REC	S	71-135		SW8260B	11/07/24 15:12 / kmh
Surr: 1,2-Dichloroethane-d4	168	%REC	S	65-147		SW8260B	11/07/24 15:12 / kmh
Surr: Toluene-d8	161	%REC	S	76-133		SW8260B	11/07/24 15:12 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 06:53 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 06:53 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 06:53 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
o-Cresol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 06:53 / eli-b
Phenol	ND	mg/kg-dry		0.36		SW8270E	11/13/24 06:53 / eli-b
Surr: 2,4,6-Tribromophenol	96.0	%REC		54-137		SW8270E	11/13/24 06:53 / eli-b
Surr: 2-Fluorobiphenyl	68.0	%REC		55-99		SW8270E	11/13/24 06:53 / eli-b
Surr: 2-Fluorophenol	68.0	%REC		27-138		SW8270E	11/13/24 06:53 / eli-b
Surr: Nitrobenzene-d5	56.0	%REC		36-115		SW8270E	11/13/24 06:53 / eli-b
Surr: Phenol-d5	67.0	%REC		52-109		SW8270E	11/13/24 06:53 / eli-b
Surr: Terphenyl-d14	94.0	%REC		61-121		SW8270E	11/13/24 06:53 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b

Report Definitions:
 RL - Analyte Reporting Limit
 QCL - Quality Control Limit
 S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
 ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-001
Client Sample ID: TP-01 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:05
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Chrysene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Fluorene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Naphthalene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b
Pyrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 16:52 / eli-b

NOV 25 2024

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-002
Client Sample ID: TP-01 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:10
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture	10.2	wt%		0.2		D2974	11/05/24 14:12 / dlm
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Benzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Bromobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Bromochloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Bromodichloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Bromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Carbon tetrachloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Chlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Chloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Chloroform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Chloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
2-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
4-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Chlorodibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,2-Dibromoethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Dibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,2-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,3-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,4-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Dichlorodifluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,1-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,2-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
cis-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,1-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
trans-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,3-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
2,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,1-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
cis-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
trans-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Ethylbenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Methylene chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Methyl ethyl ketone	ND	mg/kg-dry		4.0		SW8260B	11/07/24 16:13 / kmh
Styrene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,1,1,2,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Tetrachloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-002
Client Sample ID: TP-01 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:10
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Xylenes, Total	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:13 / kmh
Surr: p-Bromofluorobenzene	182	%REC	S	60-143		SW8260B	11/07/24 16:13 / kmh
Surr: Dibromofluoromethane	159	%REC	S	71-135		SW8260B	11/07/24 16:13 / kmh
Surr: 1,2-Dichloroethane-d4	160	%REC	S	65-147		SW8260B	11/07/24 16:13 / kmh
Surr: Toluene-d8	154	%REC	S	76-133		SW8260B	11/07/24 16:13 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 07:26 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 07:26 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 07:26 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
o-Cresol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/13/24 07:26 / eli-b
Phenol	ND	mg/kg-dry		0.37		SW8270E	11/13/24 07:26 / eli-b
Surr: 2,4,6-Tribromophenol	95.0	%REC		54-137		SW8270E	11/13/24 07:26 / eli-b
Surr: 2-Fluorobiphenyl	69.0	%REC		55-99		SW8270E	11/13/24 07:26 / eli-b
Surr: 2-Fluorophenol	75.0	%REC		27-138		SW8270E	11/13/24 07:26 / eli-b
Surr: Nitrobenzene-d5	62.0	%REC		36-115		SW8270E	11/13/24 07:26 / eli-b
Surr: Phenol-d5	71.0	%REC		52-109		SW8270E	11/13/24 07:26 / eli-b
Surr: Terphenyl-d14	92.0	%REC		61-121		SW8270E	11/13/24 07:26 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b

Report Definitions:
 RL - Analyte Reporting Limit
 QCL - Quality Control Limit
 S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
 ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-002
Client Sample ID: TP-01 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:10
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Chrysene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Fluorene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Naphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b
Pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 17:25 / eli-b

NOV 25 2024

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-003
Client Sample ID: TP-02 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:20
Date Received: 11/05/24
Matrix: Soil

Table with 8 columns: Analyses, Result, Units, Qualifiers, RL, MCL/QCL, Method, Analysis Date / By. Rows include PHYSICAL CHARACTERISTICS (Moisture) and VOLATILE ORGANIC COMPOUNDS (Bromoform, Benzene, Bromobenzene, etc.).

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-003
Client Sample ID: TP-02 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:20
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
Xylenes, Total	ND	mg/kg-dry		0.20		SW8260B	11/07/24 16:43 / kmh
Surr: p-Bromofluorobenzene	152	%REC	S	60-143		SW8260B	11/07/24 16:43 / kmh
Surr: Dibromofluoromethane	135	%REC		71-135		SW8260B	11/07/24 16:43 / kmh
Surr: 1,2-Dichloroethane-d4	138	%REC		65-147		SW8260B	11/07/24 16:43 / kmh
Surr: Toluene-d8	131	%REC		76-133		SW8260B	11/07/24 16:43 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:11 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:11 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:11 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
o-Cresol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:11 / eli-b
Phenol	ND	mg/kg-dry		0.41		SW8270E	11/14/24 21:11 / eli-b
Surr: 2,4,6-Tribromophenol	65.0	%REC		54-137		SW8270E	11/14/24 21:11 / eli-b
Surr: 2-Fluorobiphenyl	71.0	%REC		55-99		SW8270E	11/14/24 21:11 / eli-b
Surr: 2-Fluorophenol	69.0	%REC		27-138		SW8270E	11/14/24 21:11 / eli-b
Surr: Nitrobenzene-d5	59.0	%REC		36-115		SW8270E	11/14/24 21:11 / eli-b
Surr: Phenol-d5	69.0	%REC		52-109		SW8270E	11/14/24 21:11 / eli-b
Surr: Terphenyl-d14	75.0	%REC		61-121		SW8270E	11/14/24 21:11 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit
S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-003
Client Sample ID: TP-02 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:20
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Chrysene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Fluorene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Naphthalene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b
Pyrene	ND	mg/kg-dry		0.0041		SW8270E	11/08/24 17:59 / eli-b

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-004
Client Sample ID: TP-02 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:25
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture	10.4	wt%		0.2		D2974	11/05/24 14:13 / dlm
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Benzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Bromobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Bromochloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Bromodichloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Bromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Carbon tetrachloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Chlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Chloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Chloroform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Chloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
2-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
4-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Chlorodibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,2-Dibromoethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Dibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,2-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,3-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,4-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Dichlorodifluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,1-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,2-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
cis-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,1-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
trans-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,3-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
2,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,1-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
cis-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
trans-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Ethylbenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Methylene chloride	ND	mg/kg-dry		4.0		SW8260B	11/07/24 17:14 / kmh
Methyl ethyl ketone	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Styrene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,1,2,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Tetrachloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-004
Client Sample ID: TP-02 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:25
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Xylenes, Total	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:14 / kmh
Surr: p-Bromofluorobenzene	157	%REC	S	60-143		SW8260B	11/07/24 17:14 / kmh
Surr: Dibromofluoromethane	136	%REC	S	71-135		SW8260B	11/07/24 17:14 / kmh
Surr: 1,2-Dichloroethane-d4	139	%REC		65-147		SW8260B	11/07/24 17:14 / kmh
Surr: Toluene-d8	134	%REC	S	76-133		SW8260B	11/07/24 17:14 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:41 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:41 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:41 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
o-Cresol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 21:41 / eli-b
Phenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 21:41 / eli-b
Surr: 2,4,6-Tribromophenol	65.0	%REC		54-137		SW8270E	11/14/24 21:41 / eli-b
Surr: 2-Fluorobiphenyl	68.0	%REC		55-99		SW8270E	11/14/24 21:41 / eli-b
Surr: 2-Fluorophenol	68.0	%REC		27-138		SW8270E	11/14/24 21:41 / eli-b
Surr: Nitrobenzene-d5	65.0	%REC		36-115		SW8270E	11/14/24 21:41 / eli-b
Surr: Phenol-d5	66.0	%REC		52-109		SW8270E	11/14/24 21:41 / eli-b
Surr: Terphenyl-d14	74.0	%REC		61-121		SW8270E	11/14/24 21:41 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-004
Client Sample ID: TP-02 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:25
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Chrysene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Fluorene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Naphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b
Pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 18:33 / eli-b

NOV 25 2024

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-005
Client Sample ID: TP-03 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:30
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture	8.7	wt%		0.2		D2974	11/05/24 14:13 / dlm
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Benzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Bromobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Bromochloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Bromodichloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Bromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Carbon tetrachloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Chlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Chloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Chloroform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Chloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
2-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
4-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Chlorodibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,2-Dibromoethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Dibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,2-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,3-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,4-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Dichlorodifluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,1-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,2-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
cis-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,1-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
trans-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,3-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
2,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,1-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
cis-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
trans-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Ethylbenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Methylene chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Methyl ethyl ketone	ND	mg/kg-dry		4.0		SW8260B	11/07/24 17:45 / kmh
Styrene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,1,2,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Tetrachloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-005
Client Sample ID: TP-03 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:30
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Xylenes, Total	ND	mg/kg-dry		0.20		SW8260B	11/07/24 17:45 / kmh
Surr: p-Bromofluorobenzene	168	%REC	S	60-143		SW8260B	11/07/24 17:45 / kmh
Surr: Dibromofluoromethane	143	%REC	S	71-135		SW8260B	11/07/24 17:45 / kmh
Surr: 1,2-Dichloroethane-d4	142	%REC		65-147		SW8260B	11/07/24 17:45 / kmh
Surr: Toluene-d8	145	%REC	S	76-133		SW8260B	11/07/24 17:45 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:11 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:11 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:11 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
o-Cresol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:11 / eli-b
Phenol	ND	mg/kg-dry		0.36		SW8270E	11/14/24 22:11 / eli-b
Surr: 2,4,6-Tribromophenol	60.0	%REC		54-137		SW8270E	11/14/24 22:11 / eli-b
Surr: 2-Fluorobiphenyl	64.0	%REC		55-99		SW8270E	11/14/24 22:11 / eli-b
Surr: 2-Fluorophenol	62.0	%REC		27-138		SW8270E	11/14/24 22:11 / eli-b
Surr: Nitrobenzene-d5	52.0	%REC		36-115		SW8270E	11/14/24 22:11 / eli-b
Surr: Phenol-d5	62.0	%REC		52-109		SW8270E	11/14/24 22:11 / eli-b
Surr: Terphenyl-d14	72.0	%REC		61-121		SW8270E	11/14/24 22:11 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit
S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

REV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-005
Client Sample ID: TP-03 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:30
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Chrysene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Fluorene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Naphthalene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b
Pyrene	ND	mg/kg-dry		0.0036		SW8270E	11/08/24 19:06 / eli-b

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-006
Client Sample ID: TP-03 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:35
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture	2.0	wt%		0.2		D2974	11/05/24 14:13 / dlm
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Benzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Bromobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Bromochloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Bromodichloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Bromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Carbon tetrachloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Chlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Chloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Chloroform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Chloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
2-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
4-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Chlorodibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,2-Dibromoethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Dibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,2-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,3-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,4-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Dichlorodifluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,1-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,2-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
cis-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,1-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
trans-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,3-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
2,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,1-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
cis-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
trans-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Ethylbenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Methylene chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Methyl ethyl ketone	ND	mg/kg-dry		4.0		SW8260B	11/07/24 18:15 / kmh
Styrene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,1,1,2,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Tetrachloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-006
Client Sample ID: TP-03 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:35
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Xylenes, Total	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:15 / kmh
Surr: p-Bromofluorobenzene	145	%REC	S	60-143		SW8260B	11/07/24 18:15 / kmh
Surr: Dibromofluoromethane	146	%REC	S	71-135		SW8260B	11/07/24 18:15 / kmh
Surr: 1,2-Dichloroethane-d4	128	%REC		65-147		SW8260B	11/07/24 18:15 / kmh
Surr: Toluene-d8	127	%REC		76-133		SW8260B	11/07/24 18:15 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:41 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:41 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:41 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
o-Cresol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 22:41 / eli-b
Phenol	ND	mg/kg-dry		0.34		SW8270E	11/14/24 22:41 / eli-b
Surr: 2,4,6-Tribromophenol	56.0	%REC		54-137		SW8270E	11/14/24 22:41 / eli-b
Surr: 2-Fluorobiphenyl	66.0	%REC		55-99		SW8270E	11/14/24 22:41 / eli-b
Surr: 2-Fluorophenol	65.0	%REC		27-138		SW8270E	11/14/24 22:41 / eli-b
Surr: Nitrobenzene-d5	60.0	%REC		36-115		SW8270E	11/14/24 22:41 / eli-b
Surr: Phenol-d5	63.0	%REC		52-109		SW8270E	11/14/24 22:41 / eli-b
Surr: Terphenyl-d14	76.0	%REC		61-121		SW8270E	11/14/24 22:41 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b

Report RL - Analyte Reporting Limit MCL - Maximum Contaminant Level
Definitions: QCL - Quality Control Limit ND - Not detected at the Reporting Limit (RL)
S - Spike recovery outside of advisory limits

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-006
Client Sample ID: TP-03 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:35
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Chrysene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Fluorene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Naphthalene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b
Pyrene	ND	mg/kg-dry		0.0034		SW8270E	11/08/24 19:38 / eli-b

NOV 25 2024

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-007
Client Sample ID: TP-04 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:40
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture	10.1	wt%		0.2		D2974	11/05/24 14:13 / dlm
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Benzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Bromobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Bromochloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Bromodichloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Bromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Carbon tetrachloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Chlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Chloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Chloroform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Chloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
2-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
4-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Chlorodibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,2-Dibromoethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Dibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,2-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,3-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,4-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Dichlorodifluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,1-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,2-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
cis-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,1-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
trans-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,3-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
2,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,1-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
cis-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
trans-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Ethylbenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Methylene chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Methyl ethyl ketone	ND	mg/kg-dry		4.0		SW8260B	11/07/24 18:46 / kmh
Styrene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,1,1,2,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Tetrachloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-007
Client Sample ID: TP-04 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:40
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 18:46 / kmh
Xylenes, Total							
Surr: p-Bromofluorobenzene	169	%REC	S	60-143		SW8260B	11/07/24 18:46 / kmh
Surr: Dibromofluoromethane	144	%REC	S	71-135		SW8260B	11/07/24 18:46 / kmh
Surr: 1,2-Dichloroethane-d4	142	%REC		65-147		SW8260B	11/07/24 18:46 / kmh
Surr: Toluene-d8	148	%REC	S	76-133		SW8260B	11/07/24 18:46 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:12 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:12 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:12 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
o-Cresol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:12 / eli-b
Phenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:12 / eli-b
Surr: 2,4,6-Tribromophenol	57.0	%REC		54-137		SW8270E	11/14/24 23:12 / eli-b
Surr: 2-Fluorobiphenyl	63.0	%REC		55-99		SW8270E	11/14/24 23:12 / eli-b
Surr: 2-Fluorophenol	62.0	%REC		27-138		SW8270E	11/14/24 23:12 / eli-b
Surr: Nitrobenzene-d5	60.0	%REC		36-115		SW8270E	11/14/24 23:12 / eli-b
Surr: Phenol-d5	62.0	%REC		52-109		SW8270E	11/14/24 23:12 / eli-b
Surr: Terphenyl-d14	69.0	%REC		61-121		SW8270E	11/14/24 23:12 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit
S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-007
Client Sample ID: TP-04 [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:40
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Chrysene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Fluorene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Naphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b
Pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:16 / eli-b

NOV 25 2024

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-008
Client Sample ID: TP-04 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:45
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture	9.6	wt%		0.2		D2974	11/05/24 14:14 / dlm
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Benzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Bromobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Bromochloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Bromodichloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Bromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Carbon tetrachloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Chlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Chloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Chloroform	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Chloromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
2-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
4-Chlorotoluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Chlorodibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,2-Dibromoethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Dibromomethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,2-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,3-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,4-Dichlorobenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Dichlorodifluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,1-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,2-Dichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
cis-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,1-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
trans-1,2-Dichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,3-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
2,2-Dichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,1-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
cis-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
trans-1,3-Dichloropropene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Ethylbenzene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Methylene chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Methyl ethyl ketone	ND	mg/kg-dry		4.0		SW8260B	11/07/24 19:17 / kmh
Styrene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,1,1,2,2-Tetrachloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Tetrachloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-008
Client Sample ID: TP-04 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:45
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,1,1-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,1,2-Trichloroethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Trichloroethene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Trichlorofluoromethane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
1,2,3-Trichloropropane	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Vinyl chloride	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
m+p-Xylenes	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
o-Xylene	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Xylenes, Total	ND	mg/kg-dry		0.20		SW8260B	11/07/24 19:17 / kmh
Surr: p-Bromofluorobenzene	161	%REC	S	60-143		SW8260B	11/07/24 19:17 / kmh
Surr: Dibromofluoromethane	140	%REC	S	71-135		SW8260B	11/07/24 19:17 / kmh
Surr: 1,2-Dichloroethane-d4	139	%REC		65-147		SW8260B	11/07/24 19:17 / kmh
Surr: Toluene-d8	141	%REC	S	76-133		SW8260B	11/07/24 19:17 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
2,4-Dichlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
2,4-Dimethylphenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
2,4-Dinitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:42 / eli-b
2-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
2-Nitrophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:42 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
4-Chlorophenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
4-Nitrophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:42 / eli-b
m+p-Cresols	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
o-Cresol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
Pentachlorophenol	ND	mg/kg-dry		0.67		SW8270E	11/14/24 23:42 / eli-b
Phenol	ND	mg/kg-dry		0.37		SW8270E	11/14/24 23:42 / eli-b
Surr: 2,4,6-Tribromophenol	58.0	%REC		54-137		SW8270E	11/14/24 23:42 / eli-b
Surr: 2-Fluorobiphenyl	67.0	%REC		55-99		SW8270E	11/14/24 23:42 / eli-b
Surr: 2-Fluorophenol	62.0	%REC		27-138		SW8270E	11/14/24 23:42 / eli-b
Surr: Nitrobenzene-d5	61.0	%REC		36-115		SW8270E	11/14/24 23:42 / eli-b
Surr: Phenol-d5	64.0	%REC		52-109		SW8270E	11/14/24 23:42 / eli-b
Surr: Terphenyl-d14	78.0	%REC		61-121		SW8270E	11/14/24 23:42 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
2-Methylnaphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Acenaphthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Acenaphthylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit
S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-008
Client Sample ID: TP-04 [30-36]

Report Date: 11/18/24
Collection Date: 10/31/24 10:45
Date Received: 11/05/24
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Benzo(a)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Benzo(a)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Benzo(b)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Benzo(k)fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Chrysene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Fluoranthene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Fluorene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Indeno(1,2,3-cd)pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Naphthalene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Phenanthrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b
Pyrene	ND	mg/kg-dry		0.0037		SW8270E	11/08/24 21:48 / eli-b

NOV 25 2024

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-009
Client Sample ID: TP-05 GW

Report Date: 11/18/24
Collection Date: 10/31/24 11:25
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Bromobenzene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Bromochloromethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Bromodichloromethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Bromoform	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Bromomethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Chlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Chloroethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Chloroform	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Chloromethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
2-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
4-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Dibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Ethylbenzene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	11/08/24 18:40 / kmh
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Methylene chloride	1.4	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Styrene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Tetrachloroethene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Toluene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Trichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-009
Client Sample ID: TP-05 GW

Report Date: 11/18/24
Collection Date: 10/31/24 11:25
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Vinyl chloride	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
m+p-Xylenes	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
o-Xylene	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Xylenes, Total	ND	ug/L		1.0		SW8260B	11/08/24 18:40 / kmh
Surr: Dibromofluoromethane	100	%REC		70-125		SW8260B	11/08/24 18:40 / kmh
Surr: 1,2-Dichloroethane-d4	100	%REC		69-131		SW8260B	11/08/24 18:40 / kmh
Surr: Toluene-d8	98.0	%REC		80-119		SW8260B	11/08/24 18:40 / kmh
Surr: p-Bromofluorobenzene	96.0	%REC		76-123		SW8260B	11/08/24 18:40 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
2,4,6-Trichlorophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
2,4-Dichlorophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
2,4-Dimethylphenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
2,4-Dinitrophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
2-Chlorophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
2-Nitrophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
4,6-Dinitro-2-methylphenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
4-Chloro-3-methylphenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
4-Chlorophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
4-Nitrophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
m+p-Cresols	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
o-Cresol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
Pentachlorophenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
Phenol	ND	ug/L		10		SW8270E	11/13/24 16:55 / eli-b
Surr: 2,4,6-Tribromophenol	58.0	%REC		25-140		SW8270E	11/13/24 16:55 / eli-b
Surr: 2-Fluorobiphenyl	54.0	%REC		28-107		SW8270E	11/13/24 16:55 / eli-b
Surr: 2-Fluorophenol	35.0	%REC		10-75		SW8270E	11/13/24 16:55 / eli-b
Surr: Nitrobenzene-d5	56.0	%REC		32-94		SW8270E	11/13/24 16:55 / eli-b
Surr: Phenol-d5	33.0	%REC		10-65		SW8270E	11/13/24 16:55 / eli-b
Surr: Terphenyl-d14	53.0	%REC		32-122		SW8270E	11/13/24 16:55 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
2-Methylnaphthalene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Acenaphthene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Acenaphthylene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Anthracene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Benzo(a)anthracene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Benzo(a)pyrene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Benzo(b)fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-009
Client Sample ID: TP-05 GW

Report Date: 11/18/24
Collection Date: 10/31/24 11:25
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Benzo(g,h,i)perylene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Benzo(k)fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Chrysene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Fluorene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Naphthalene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Phenanthrene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b
Pyrene	ND	ug/L		0.10		SW8270E	11/15/24 00:23 / eli-b

NOV 25 2024

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-010
Client Sample ID: TP-06 GW

Report Date: 11/18/24
Collection Date: 10/31/24 12:00
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Bromobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Bromochloromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Bromodichloromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Bromoform	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Bromomethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Chlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Chloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Chloroform	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Chloromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
2-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
4-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Dibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Ethylbenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	11/08/24 19:12 / kmh
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Methylene chloride	1.2	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Styrene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Tetrachloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Toluene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Trichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-010
Client Sample ID: TP-06 GW

Report Date: 11/18/24
Collection Date: 10/31/24 12:00
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Vinyl chloride	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
m+p-Xylenes	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
o-Xylene	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Xylenes, Total	ND	ug/L		1.0		SW8260B	11/08/24 19:12 / kmh
Surr: Dibromofluoromethane	100	%REC		70-125		SW8260B	11/08/24 19:12 / kmh
Surr: 1,2-Dichloroethane-d4	102	%REC		69-131		SW8260B	11/08/24 19:12 / kmh
Surr: Toluene-d8	99.0	%REC		80-119		SW8260B	11/08/24 19:12 / kmh
Surr: p-Bromofluorobenzene	96.0	%REC		76-123		SW8260B	11/08/24 19:12 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
2,4,6-Trichlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
2,4-Dichlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
2,4-Dimethylphenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
2,4-Dinitrophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
2-Chlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
2-Nitrophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
4,6-Dinitro-2-methylphenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
4-Chloro-3-methylphenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
4-Chlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
4-Nitrophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
m+p-Cresols	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
o-Cresol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
Pentachlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
Phenol	ND	ug/L		10		SW8270E	11/13/24 17:25 / eli-b
Surr: 2,4,6-Tribromophenol	56.0	%REC		25-140		SW8270E	11/13/24 17:25 / eli-b
Surr: 2-Fluorobiphenyl	54.0	%REC		28-107		SW8270E	11/13/24 17:25 / eli-b
Surr: 2-Fluorophenol	34.0	%REC		10-75		SW8270E	11/13/24 17:25 / eli-b
Surr: Nitrobenzene-d5	57.0	%REC		32-94		SW8270E	11/13/24 17:25 / eli-b
Surr: Phenol-d5	30.0	%REC		10-65		SW8270E	11/13/24 17:25 / eli-b
Surr: Terphenyl-d14	56.0	%REC		32-122		SW8270E	11/13/24 17:25 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
2-Methylnaphthalene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Acenaphthene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Acenaphthylene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Anthracene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Benzo(a)anthracene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Benzo(a)pyrene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Benzo(b)fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-010
Client Sample ID: TP-06 GW

Report Date: 11/18/24
Collection Date: 10/31/24 12:00
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Benzo(g,h,i)perylene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Benzo(k)fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Chrysene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Fluorene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Naphthalene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Phenanthrene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b
Pyrene	ND	ug/L		0.10		SW8270E	11/15/24 01:28 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-011
Client Sample ID: TP-07 GW

Report Date: 11/18/24
Collection Date: 10/31/24 12:35
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Bromobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Bromochloromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Bromodichloromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Bromoform	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Bromomethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Chlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Chloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Chloroform	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Chloromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
2-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
4-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Dibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Ethylbenzene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	11/08/24 19:45 / kmh
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Methylene chloride	1.3	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Styrene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Tetrachloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Toluene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Trichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-011
Client Sample ID: TP-07 GW

Report Date: 11/18/24
Collection Date: 10/31/24 12:35
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Vinyl chloride	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
m+p-Xylenes	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
o-Xylene	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Xylenes, Total	ND	ug/L		1.0		SW8260B	11/08/24 19:45 / kmh
Surr: Dibromofluoromethane	100	%REC		70-125		SW8260B	11/08/24 19:45 / kmh
Surr: 1,2-Dichloroethane-d4	100	%REC		69-131		SW8260B	11/08/24 19:45 / kmh
Surr: Toluene-d8	100	%REC		80-119		SW8260B	11/08/24 19:45 / kmh
Surr: p-Bromofluorobenzene	95.0	%REC		76-123		SW8260B	11/08/24 19:45 / kmh
SEMI-VOLATILE ORGANIC COMPOUNDS							
2,4,5-Trichlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
2,4,6-Trichlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
2,4-Dichlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
2,4-Dimethylphenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
2,4-Dinitrophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
2-Chlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
2-Nitrophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
4,6-Dinitro-2-methylphenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
4-Chloro-3-methylphenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
4-Chlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
4-Nitrophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
m+p-Cresols	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
o-Cresol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
Pentachlorophenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
Phenol	ND	ug/L		10		SW8270E	11/13/24 17:55 / eli-b
Surr: 2,4,6-Tribromophenol	62.0	%REC		25-140		SW8270E	11/13/24 17:55 / eli-b
Surr: 2-Fluorobiphenyl	58.0	%REC		28-107		SW8270E	11/13/24 17:55 / eli-b
Surr: 2-Fluorophenol	42.0	%REC		10-75		SW8270E	11/13/24 17:55 / eli-b
Surr: Nitrobenzene-d5	64.0	%REC		32-94		SW8270E	11/13/24 17:55 / eli-b
Surr: Phenol-d5	39.0	%REC		10-65		SW8270E	11/13/24 17:55 / eli-b
Surr: Terphenyl-d14	69.0	%REC		32-122		SW8270E	11/13/24 17:55 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
1-Methylnaphthalene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
2-Methylnaphthalene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Acenaphthene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Acenaphthylene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Anthracene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Benzo(a)anthracene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Benzo(a)pyrene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Benzo(b)fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-011
Client Sample ID: TP-07 GW

Report Date: 11/18/24
Collection Date: 10/31/24 12:35
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Benzo(g,h,i)perylene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Benzo(k)fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Chrysene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Fluorene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Naphthalene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Phenanthrene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b
Pyrene	ND	ug/L		0.10		SW8270E	11/15/24 02:33 / eli-b

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-012
Client Sample ID: TP-08 GW

Report Date: 11/18/24
Collection Date: 10/31/24 13:00
Date Received: 11/05/24
Matrix: Aqueous

Table with columns: Analyses, Result, Units, Qualifiers, RL, MCL/QCL, Method, Analysis Date / By. Contains list of Volatile Organic Compounds and their detection results.

Report: RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-012
Client Sample ID: TP-08 GW

Report Date: 11/18/24
Collection Date: 10/31/24 13:00
Date Received: 11/05/24
Matrix: Aqueous

Table with columns: Analyses, Result, Units, Qualifiers, RL, MCL/QCL, Method, Analysis Date / By. Contains sections for Volatile Organic Compounds, Semi-Volatile Organic Compounds, and Semi-Volatile Organic Compounds (Low Level) by SIM.

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-012
Client Sample ID: TP-08 GW

Report Date: 11/18/24
Collection Date: 10/31/24 13:00
Date Received: 11/05/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM							
Benzo(g,h,i)perylene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Benzo(k)fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Chrysene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Fluoranthene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Fluorene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Naphthalene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Phenanthrene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b
Pyrene	ND	ug/L		0.10		SW8270E	11/15/24 03:05 / eli-b

NOV 25 2024

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-013
Client Sample ID: Trip Blank

Report Date: 11/18/24
Collection Date: 10/31/24 11:25
Date Received: 11/05/24
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Bromobenzene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Bromochloromethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Bromodichloromethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Bromoform	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Bromomethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Chlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Chloroethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Chloroform	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Chloromethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
2-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
4-Chlorotoluene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Dibromomethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Ethylbenzene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	11/08/24 15:28 / kmh
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Methylene chloride	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Styrene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Tetrachloroethene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Toluene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Trichloroethene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-013
Client Sample ID: Trip Blank

Report Date: 11/18/24
Collection Date: 10/31/24 11:25
Date Received: 11/05/24
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Vinyl chloride	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
m+p-Xylenes	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
o-Xylene	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Xylenes, Total	ND	ug/L		1.0		SW8260B	11/08/24 15:28 / kmh
Surr: Dibromofluoromethane	101	%REC		70-125		SW8260B	11/08/24 15:28 / kmh
Surr: 1,2-Dichloroethane-d4	100	%REC		69-131		SW8260B	11/08/24 15:28 / kmh
Surr: Toluene-d8	97.0	%REC		80-119		SW8260B	11/08/24 15:28 / kmh
Surr: p-Bromofluorobenzene	98.0	%REC		76-123		SW8260B	11/08/24 15:28 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 20 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-014
Client Sample ID: Trip Blank [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:05
Date Received: 11/05/24
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Bromoform	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Benzene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Bromobenzene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Bromochloromethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Bromodichloromethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Bromomethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Carbon tetrachloride	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Chlorobenzene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Chloroethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
2-Chloroethyl vinyl ether	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Chloroform	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Chloromethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
2-Chlorotoluene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
4-Chlorotoluene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Chlorodibromomethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,2-Dibromoethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Dibromomethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,2-Dichlorobenzene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,3-Dichlorobenzene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,4-Dichlorobenzene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Dichlorodifluoromethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,1-Dichloroethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,2-Dichloroethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
cis-1,2-Dichloroethene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,1-Dichloroethene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
trans-1,2-Dichloroethene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,2-Dichloropropane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,3-Dichloropropane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
2,2-Dichloropropane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,1-Dichloropropene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
cis-1,3-Dichloropropene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
trans-1,3-Dichloropropene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Ethylbenzene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Methyl tert-butyl ether (MTBE)	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Methylene chloride	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Methyl ethyl ketone	ND	mg/kg		4.0		SW8260B	11/07/24 14:41 / kmh
Styrene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,1,1,2-Tetrachloroethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,1,1,2,2-Tetrachloroethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Tetrachloroethene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Toluene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,1,1-Trichloroethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,1,2-Trichloroethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Big Sky Civil and Environmental
Project: 24AE-Tim Birk Somers Ph 11 ESA
Lab ID: H24110085-014
Client Sample ID: Trip Blank [0-6]

Report Date: 11/18/24
Collection Date: 10/31/24 10:05
Date Received: 11/05/24
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Trichlorofluoromethane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
1,2,3-Trichloropropane	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Vinyl chloride	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
m+p-Xylenes	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
o-Xylene	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Xylenes, Total	ND	mg/kg		0.20		SW8260B	11/07/24 14:41 / kmh
Surr: p-Bromofluorobenzene	153	%REC	S	60-143		SW8260B	11/07/24 14:41 / kmh
Surr: Dibromofluoromethane	126	%REC		71-135		SW8260B	11/07/24 14:41 / kmh
Surr: 1,2-Dichloroethane-d4	128	%REC		65-147		SW8260B	11/07/24 14:41 / kmh
Surr: Toluene-d8	134	%REC	S	76-133		SW8260B	11/07/24 14:41 / kmh

NOV 25 2024

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
S - Spike recovery outside of advisory limits

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D2974										Batch: PMOIST_241105_A
Lab ID: H24110085-004A DUP		Sample Duplicate					Run: SOIL DRYING OVEN 2_24110			11/05/24 14:13
Moisture		11.1	wt%	0.20				6.2		20

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Batch: 74946										
Lab ID: MB-74946	53	Method Blank								
						Run: 5973MSD_241107A				11/07/24 14:00
Benzene		ND	mg/kg	0.20						
Bromobenzene		ND	mg/kg	0.20						
Bromochloromethane		ND	mg/kg	0.20						
Bromodichloromethane		ND	mg/kg	0.20						
Bromoform		ND	mg/kg	0.20						
Bromomethane		ND	mg/kg	0.20						
Carbon tetrachloride		ND	mg/kg	0.20						
Chlorobenzene		ND	mg/kg	0.20						
Chlorodibromomethane		ND	mg/kg	0.20						
Chloroethane		ND	mg/kg	0.20						
2-Chloroethyl vinyl ether		ND	mg/kg	0.20						
Chloroform		ND	mg/kg	0.20						
Chloromethane		ND	mg/kg	0.20						
2-Chlorotoluene		ND	mg/kg	0.20						
4-Chlorotoluene		ND	mg/kg	0.20						
1,2-Dibromoethane		ND	mg/kg	0.20						
Dibromomethane		ND	mg/kg	0.20						
1,2-Dichlorobenzene		ND	mg/kg	0.20						
1,3-Dichlorobenzene		ND	mg/kg	0.20						
1,4-Dichlorobenzene		ND	mg/kg	0.20						
Dichlorodifluoromethane		ND	mg/kg	0.20						
1,1-Dichloroethane		ND	mg/kg	0.20						
1,2-Dichloroethane		ND	mg/kg	0.20						
1,1-Dichloroethene		ND	mg/kg	0.20						
cis-1,2-Dichloroethene		ND	mg/kg	0.20						
trans-1,2-Dichloroethene		ND	mg/kg	0.20						
1,2-Dichloropropane		ND	mg/kg	0.20						
1,3-Dichloropropane		ND	mg/kg	0.20						
2,2-Dichloropropane		ND	mg/kg	0.20						
1,1-Dichloropropene		ND	mg/kg	0.20						
cis-1,3-Dichloropropene		ND	mg/kg	0.20						
trans-1,3-Dichloropropene		ND	mg/kg	0.20						
Ethylbenzene		ND	mg/kg	0.20						
Methyl tert-butyl ether (MTBE)		ND	mg/kg	0.20						
Methyl ethyl ketone		ND	mg/kg	4.0						
Methylene chloride		ND	mg/kg	0.20						
Styrene		ND	mg/kg	0.20						
1,1,1,2-Tetrachloroethane		ND	mg/kg	0.20						
1,1,2,2-Tetrachloroethane		ND	mg/kg	0.20						
Tetrachloroethene		ND	mg/kg	0.20						
Toluene		ND	mg/kg	0.20						
1,1,1-Trichloroethane		ND	mg/kg	0.20						
1,1,2-Trichloroethane		ND	mg/kg	0.20						
Trichloroethene		ND	mg/kg	0.20						
Trichlorofluoromethane		ND	mg/kg	0.20						

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Batch: 74946										
Lab ID: MB-74946	53	Method Blank				Run: 5973MSD_241107A		11/07/24 14:00		
1,2,3-Trichloropropane		ND	mg/kg	0.20						
Vinyl chloride		ND	mg/kg	0.20						
m+p-Xylenes		ND	mg/kg	0.20						
o-Xylene		ND	mg/kg	0.20						
Surr: 1,2-Dichloroethane-d4				0.20	115	65	147			
Surr: Dibromofluoromethane				0.20	120	71	135			
Surr: p-Bromofluorobenzene				0.20	141	60	143			
Surr: Toluene-d8				0.20	127	76	133			
Lab ID: H24110085-002BMS	53	Sample Matrix Spike				Run: 5973MSD_241107A		11/07/24 20:18		
Benzene		2.11	mg/kg-dry	0.20	111	77	128			
Bromobenzene		2.24	mg/kg-dry	0.20	118	81	131			
Bromochloromethane		1.91	mg/kg-dry	0.20	101	71	135			
Bromodichloromethane		2.12	mg/kg-dry	0.20	112	62	141			
Bromoform		1.97	mg/kg-dry	0.20	104	75	117			
Bromomethane		2.17	mg/kg-dry	0.20	115	40	121			
Carbon tetrachloride		2.03	mg/kg-dry	0.20	107	71	142			
Chlorobenzene		2.16	mg/kg-dry	0.20	114	82	130			
Chlorodibromomethane		2.21	mg/kg-dry	0.20	117	66	123			
Chloroethane		1.94	mg/kg-dry	0.20	102	53	140			
2-Chloroethyl vinyl ether		2.07	mg/kg-dry	0.20	110	39	155			
Chloroform		2.07	mg/kg-dry	0.20	109	69	134			
Chloromethane		1.76	mg/kg-dry	0.20	93	78	131			
2-Chlorotoluene		2.23	mg/kg-dry	0.20	118	84	131			
4-Chlorotoluene		2.06	mg/kg-dry	0.20	109	82	133			
1,2-Dibromoethane		2.20	mg/kg-dry	0.20	116	63	121			
Dibromomethane		2.12	mg/kg-dry	0.20	112	53	149			
1,2-Dichlorobenzene		2.13	mg/kg-dry	0.20	113	84	121			
1,3-Dichlorobenzene		2.12	mg/kg-dry	0.20	112	82	125			
1,4-Dichlorobenzene		2.10	mg/kg-dry	0.20	111	83	128			
Dichlorodifluoromethane		1.20	mg/kg-dry	0.20	63	38	132			
1,1-Dichloroethane		1.88	mg/kg-dry	0.20	99	66	124			
1,2-Dichloroethane		2.00	mg/kg-dry	0.20	106	65	131			
1,1-Dichloroethene		1.84	mg/kg-dry	0.20	97	82	136			
cis-1,2-Dichloroethene		1.85	mg/kg-dry	0.20	98	82	126			
trans-1,2-Dichloroethene		1.89	mg/kg-dry	0.20	100	80	130			
1,2-Dichloropropane		2.11	mg/kg-dry	0.20	111	70	148			
1,3-Dichloropropane		2.29	mg/kg-dry	0.20	121	73	125			
2,2-Dichloropropane		2.00	mg/kg-dry	0.20	106	74	138			
1,1-Dichloropropene		2.03	mg/kg-dry	0.20	107	63	154			
cis-1,3-Dichloropropene		2.23	mg/kg-dry	0.20	118	66	152			
trans-1,3-Dichloropropene		2.13	mg/kg-dry	0.20	113	64	133			
Ethylbenzene		2.31	mg/kg-dry	0.20	122	79	134			
Methyl tert-butyl ether (MTBE)		1.97	mg/kg-dry	0.20	104	60	126			
Methyl ethyl ketone		18.7	mg/kg-dry	4.0	99	50	150			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8260B											
Batch: 74946											
Lab ID: H24110085-002BMS	53	Sample Matrix Spike		Run: 5973MSD_241107A				11/07/24 20:18			
Methylene chloride		1.81	mg/kg-dry	0.20	96	80	127				
Styrene		2.18	mg/kg-dry	0.20	115	82	127				
1,1,1,2-Tetrachloroethane		2.16	mg/kg-dry	0.20	114	75	128				
1,1,2,2-Tetrachloroethane		2.04	mg/kg-dry	0.20	108	74	120				
Tetrachloroethene		2.27	mg/kg-dry	0.20	120	72	144				
Toluene		2.32	mg/kg-dry	0.20	122	70	146				
1,1,1-Trichloroethane		2.07	mg/kg-dry	0.20	109	75	145				
1,1,2-Trichloroethane		2.13	mg/kg-dry	0.20	113	67	125				
Trichloroethene		2.16	mg/kg-dry	0.20	114	70	144				
Trichlorofluoromethane		1.98	mg/kg-dry	0.20	105	79	140				
1,2,3-Trichloropropane		2.06	mg/kg-dry	0.20	109	76	117				
Vinyl chloride		1.74	mg/kg-dry	0.20	92	81	139				
m+p-Xylenes		4.77	mg/kg-dry	0.20	126	79	133				
o-Xylene		2.09	mg/kg-dry	0.20	110	84	132				
Surr: 1,2-Dichloroethane-d4				0.20	112	65	147				
Surr: Dibromofluoromethane				0.20	112	71	135				
Surr: p-Bromofluorobenzene				0.20	124	60	143				
Surr: Toluene-d8				0.20	121	76	133				
Lab ID: LCS-74946	53	Laboratory Control Sample		Run: 5973MSD_241107A				11/07/24 19:47			
Benzene		1.20	mg/kg	0.20	120	77	128				
Bromobenzene		1.23	mg/kg	0.20	123	81	131				
Bromochloromethane		1.12	mg/kg	0.20	112	71	135				
Bromodichloromethane		1.17	mg/kg	0.20	117	62	141				
Bromoform		1.14	mg/kg	0.20	114	75	117				
Bromomethane		1.27	mg/kg	0.20	127	40	121			S	
Carbon tetrachloride		1.17	mg/kg	0.20	117	71	142				
Chlorobenzene		1.21	mg/kg	0.20	121	82	130				
Chlorodibromomethane		1.20	mg/kg	0.20	120	66	123				
Chloroethane		1.23	mg/kg	0.20	123	53	140				
2-Chloroethyl vinyl ether		1.09	mg/kg	0.20	109	39	155				
Chloroform		1.17	mg/kg	0.20	117	69	134				
Chloromethane		1.02	mg/kg	0.20	102	78	131				
2-Chlorotoluene		1.23	mg/kg	0.20	123	84	131				
4-Chlorotoluene		1.15	mg/kg	0.20	115	82	133				
1,2-Dibromoethane		1.20	mg/kg	0.20	120	63	121				
Dibromomethane		1.16	mg/kg	0.20	116	53	149				
1,2-Dichlorobenzene		1.18	mg/kg	0.20	118	84	121				
1,3-Dichlorobenzene		1.17	mg/kg	0.20	117	82	125				
1,4-Dichlorobenzene		1.16	mg/kg	0.20	116	83	128				
Dichlorodifluoromethane		0.769	mg/kg	0.20	77	38	132				
1,1-Dichloroethane		1.03	mg/kg	0.20	103	66	124				
1,2-Dichloroethane		1.19	mg/kg	0.20	119	65	131				
1,1-Dichloroethene		1.20	mg/kg	0.20	120	82	136				
cis-1,2-Dichloroethene		1.08	mg/kg	0.20	108	82	126				

Qualifiers:

RL - Analyte Reporting Limit

S - Spike recovery outside of advisory limits

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8260B											
Batch: 74946											
Lab ID: LCS-74946	53 Laboratory Control Sample			Run: 5973MSD_241107A				11/07/24 19:47			
trans-1,2-Dichloroethene		1.23	mg/kg	0.20	123	80	130				
1,2-Dichloropropane		1.19	mg/kg	0.20	119	70	148				
1,3-Dichloropropane		1.29	mg/kg	0.20	129	73	125				
2,2-Dichloropropane		1.15	mg/kg	0.20	115	74	138			S	
1,1-Dichloropropene		1.14	mg/kg	0.20	114	63	154				
cis-1,3-Dichloropropene		1.21	mg/kg	0.20	121	66	152				
trans-1,3-Dichloropropene		1.18	mg/kg	0.20	118	64	133				
Ethylbenzene		1.27	mg/kg	0.20	127	79	134				
Methyl tert-butyl ether (MTBE)		1.13	mg/kg	0.20	113	60	126				
Methyl ethyl ketone		10.5	mg/kg	4.0	105	50	150				
Methylene chloride		1.23	mg/kg	0.20	123	80	127				
Styrene		1.22	mg/kg	0.20	122	82	127				
1,1,1,2-Tetrachloroethane		1.20	mg/kg	0.20	120	75	128				
1,1,2,2-Tetrachloroethane		1.17	mg/kg	0.20	117	74	120				
Tetrachloroethene		1.27	mg/kg	0.20	127	72	144				
Toluene		1.29	mg/kg	0.20	129	70	146				
1,1,1-Trichloroethane		1.19	mg/kg	0.20	119	75	145				
1,1,2-Trichloroethane		1.18	mg/kg	0.20	118	67	125				
Trichloroethene		1.19	mg/kg	0.20	119	70	144				
Trichlorofluoromethane		1.25	mg/kg	0.20	125	79	140				
1,2,3-Trichloropropane		1.18	mg/kg	0.20	118	76	117				
Vinyl chloride		0.976	mg/kg	0.20	98	81	139			S	
m+p-Xylenes		2.66	mg/kg	0.20	133	79	133				
o-Xylene		1.16	mg/kg	0.20	116	84	132				
Surr: 1,2-Dichloroethane-d4				0.20	116	65	147				
Surr: Dibromofluoromethane				0.20	117	71	135				
Surr: p-Bromofluorobenzene				0.20	123	60	143				
Surr: Toluene-d8				0.20	122	76	133				

Qualifiers:

RL - Analyte Reporting Limit

S - Spike recovery outside of advisory limits

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Lab ID: 07-Nov-24_UPCCV_2 53 Continuing Calibration Verification Standard										
Analytical Run: R200290 11/07/24 11:10										
Benzene		1.03	mg/kg	0.20	103	70	130			
Bromobenzene		1.06	mg/kg	0.20	106	70	130			
Bromochloromethane		0.942	mg/kg	0.20	94	70	130			
Bromodichloromethane		0.998	mg/kg	0.20	100	70	130			
Bromoform		0.943	mg/kg	0.20	94	70	130			
Bromomethane		1.07	mg/kg	0.20	107	70	130			
Carbon tetrachloride		1.01	mg/kg	0.20	101	70	130			
Chlorobenzene		1.02	mg/kg	0.20	102	70	130			
Chlorodibromomethane		0.999	mg/kg	0.20	100	70	130			
Chloroethane		0.945	mg/kg	0.20	95	70	130			
2-Chloroethyl vinyl ether		0.861	mg/kg	0.20	86	70	130			
Chloroform		0.996	mg/kg	0.20	100	80	120			
Chloromethane		0.985	mg/kg	0.20	99	70	130			
2-Chlorotoluene		1.03	mg/kg	0.20	103	70	130			
4-Chlorotoluene		0.979	mg/kg	0.20	98	70	130			
1,2-Dibromoethane		0.951	mg/kg	0.20	95	70	130			
Dibromomethane		0.948	mg/kg	0.20	95	70	130			
1,2-Dichlorobenzene		1.01	mg/kg	0.20	101	70	130			
1,3-Dichlorobenzene		0.998	mg/kg	0.20	100	70	130			
1,4-Dichlorobenzene		0.982	mg/kg	0.20	98	70	130			
Dichlorodifluoromethane		0.971	mg/kg	0.20	97	70	130			
1,1-Dichloroethane		0.950	mg/kg	0.20	95	70	130			
1,2-Dichloroethane		0.976	mg/kg	0.20	98	70	130			
1,1-Dichloroethene		1.11	mg/kg	0.20	111	80	120			
cis-1,2-Dichloroethene		0.962	mg/kg	0.20	96	70	130			
trans-1,2-Dichloroethene		0.982	mg/kg	0.20	98	70	130			
1,2-Dichloropropane		1.02	mg/kg	0.20	102	80	120			
1,3-Dichloropropane		0.988	mg/kg	0.20	99	70	130			
2,2-Dichloropropane		1.03	mg/kg	0.20	103	70	130			
1,1-Dichloropropene		0.993	mg/kg	0.20	99	70	130			
cis-1,3-Dichloropropene		0.981	mg/kg	0.20	98	70	130			
trans-1,3-Dichloropropene		1.03	mg/kg	0.20	103	70	130			
Ethylbenzene		1.02	mg/kg	0.20	102	80	120			
Methyl tert-butyl ether (MTBE)		0.867	mg/kg	0.20	87	70	130			
Methyl ethyl ketone		8.17	mg/kg	4.0	82	70	130			
Methylene chloride		0.940	mg/kg	0.20	94	70	130			
Styrene		0.933	mg/kg	0.20	93	70	130			
1,1,1,2-Tetrachloroethane		0.982	mg/kg	0.20	98	70	130			
1,1,2,2-Tetrachloroethane		0.969	mg/kg	0.20	97	70	130			
Tetrachloroethene		1.06	mg/kg	0.20	106	80	120			
Toluene		1.07	mg/kg	0.20	107	70	130			
1,1,1-Trichloroethane		1.01	mg/kg	0.20	101	70	130			
1,1,2-Trichloroethane		0.935	mg/kg	0.20	94	70	130			
Trichloroethene		1.03	mg/kg	0.20	103	70	130			
Trichlorofluoromethane		0.949	mg/kg	0.20	95	70	130			

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Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Lab ID: 07-Nov-24_UPCCV_2 53 Continuing Calibration Verification Standard										
Analytical Run: R200290 11/07/24 11:10										
1,2,3-Trichloropropane		0.956	mg/kg	0.20	96	70	130			
Vinyl chloride		0.991	mg/kg	0.20	99	80	120			
m+p-Xylenes		2.12	mg/kg	0.20	106	70	130			
o-Xylene		0.928	mg/kg	0.20	93	70	130			
Surr: 1,2-Dichloroethane-d4				0.20	107	70	130			
Surr: Dibromofluoromethane				0.20	108	70	130			
Surr: p-Bromofluorobenzene				0.20	118	70	130			
Surr: Toluene-d8				0.20	112	70	130			

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Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Table with columns: Analyte, Count, Result, Units, RL, %REC, Low Limit, High Limit, RPD, RPDLimit, Qual. Includes 53 rows of calibration verification standards and their results.

Analytical Run: R200328
11/08/24 11:38

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Analytical Run: R200328										
Lab ID: 08-Nov-24_CCV_2	53	Continuing Calibration Verification Standard								11/08/24 11:38
Vinyl chloride		4.49	ug/L	0.40	90	80	120			
m+p-Xylenes		9.50	ug/L	0.50	95	70	130			
o-Xylene		4.67	ug/L	0.50	93	70	130			
Xylenes, Total		14.2	ug/L	0.50	94	70	130			
Surr: 1,2-Dichloroethane-d4				1.0	91	69	131			
Surr: Dibromofluoromethane				1.0	98	70	125			
Surr: p-Bromofluorobenzene				1.0	95	76	123			
Surr: Toluene-d8				1.0	102	80	119			

Method: SW8260B										
Batch: R200328										
Lab ID: 08-Nov-24_LCS_3	53	Laboratory Control Sample								11/08/24 12:21
Run: 5973MSD2_241108A										
Benzene		4.34	ug/L	0.50	87	75	120			
Bromobenzene		4.07	ug/L	0.50	81	80	125			
Bromochloromethane		4.20	ug/L	0.50	84	65	130			
Bromodichloromethane		4.42	ug/L	0.50	88	79	118			
Bromoform		4.09	ug/L	0.50	82	67	128			
Bromomethane		4.07	ug/L	0.50	81	51	136			
Carbon tetrachloride		4.43	ug/L	0.50	89	75	129			
Chlorobenzene		4.26	ug/L	0.50	85	77	127			
Chlorodibromomethane		4.15	ug/L	0.50	83	70	126			
Chloroethane		4.25	ug/L	0.50	85	70	139			
Chloroform		4.40	ug/L	0.50	88	74	125			
Chloromethane		3.69	ug/L	0.50	74	64	152			
2-Chlorotoluene		4.07	ug/L	0.50	81	78	130			
4-Chlorotoluene		4.24	ug/L	0.50	85	82	129			
1,2-Dibromoethane		4.16	ug/L	0.30	83	72	122			
Dibromomethane		4.28	ug/L	0.50	86	75	120			
1,2-Dichlorobenzene		4.18	ug/L	0.50	84	74	122			
1,3-Dichlorobenzene		4.16	ug/L	0.50	83	78	120			
1,4-Dichlorobenzene		4.26	ug/L	0.50	85	70	121			
Dichlorodifluoromethane		3.00	ug/L	0.50	60	48	152			
1,1-Dichloroethane		4.27	ug/L	0.50	85	77	123			
1,2-Dichloroethane		4.31	ug/L	0.50	86	64	127			
1,1-Dichloroethene		4.30	ug/L	0.50	86	76	130			
cis-1,2-Dichloroethene		4.28	ug/L	0.50	86	74	124			
trans-1,2-Dichloroethene		4.51	ug/L	0.50	90	79	124			
1,2-Dichloropropane		4.31	ug/L	0.50	86	81	121			
1,3-Dichloropropane		4.30	ug/L	0.50	86	72	122			
2,2-Dichloropropane		5.04	ug/L	0.50	101	75	139			
1,1-Dichloropropene		4.33	ug/L	0.50	87	73	130			
cis-1,3-Dichloropropene		4.25	ug/L	0.30	85	74	128			
trans-1,3-Dichloropropene		3.88	ug/L	0.30	78	69	122			
Ethylbenzene		4.26	ug/L	0.50	85	74	125			
Methyl tert-butyl ether (MTBE)		4.08	ug/L	0.50	82	66	129			
Methyl ethyl ketone		37.8	ug/L	10	76	63	136			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Batch: R200328										
Lab ID: 08-Nov-24_LCS_3	53	Laboratory Control Sample			Run: 5973MSD2_241108A				11/08/24 12:21	
Methylene chloride		4.20	ug/L	0.50	84	69	128			
Styrene		4.38	ug/L	0.50	88	75	123			
1,1,1,2-Tetrachloroethane		4.22	ug/L	0.50	84	76	124			
1,1,2,2-Tetrachloroethane		4.34	ug/L	0.50	87	67	124			
Tetrachloroethene		4.17	ug/L	0.50	83	77	136			
Toluene		4.35	ug/L	0.50	87	82	125			
1,1,1-Trichloroethane		4.33	ug/L	0.50	87	73	134			
1,1,2-Trichloroethane		4.21	ug/L	0.50	84	72	119			
Trichloroethene		4.45	ug/L	0.50	89	72	132			
Trichlorofluoromethane		3.69	ug/L	0.50	74	73	137			
1,2,3-Trichloropropane		4.00	ug/L	0.50	80	71	126			
Vinyl chloride		3.54	ug/L	0.40	71	68	140			
m+p-Xylenes		8.45	ug/L	0.50	84	84	128			
o-Xylene		4.11	ug/L	0.50	82	79	126			
Xylenes, Total		12.6	ug/L	0.50	84	81	127			
Surr: 1,2-Dichloroethane-d4				1.0	95	69	131			
Surr: Dibromofluoromethane				1.0	99	70	125			
Surr: p-Bromofluorobenzene				1.0	92	76	123			
Surr: Toluene-d8				1.0	100	80	119			
Lab ID: 08-Nov-24_MBLK_5	53	Method Blank			Run: 5973MSD2_241108A				11/08/24 13:25	
Benzene		ND	ug/L	0.50						
Bromobenzene		ND	ug/L	0.50						
Bromochloromethane		ND	ug/L	0.50						
Bromodichloromethane		ND	ug/L	0.50						
Bromoform		ND	ug/L	0.50						
Bromomethane		ND	ug/L	0.50						
Carbon tetrachloride		ND	ug/L	0.50						
Chlorobenzene		ND	ug/L	0.50						
Chlorodibromomethane		ND	ug/L	0.50						
Chloroethane		ND	ug/L	0.50						
Chloroform		ND	ug/L	0.50						
Chloromethane		ND	ug/L	0.50						
2-Chlorotoluene		ND	ug/L	0.50						
4-Chlorotoluene		ND	ug/L	0.50						
1,2-Dibromoethane		ND	ug/L	0.30						
Dibromomethane		ND	ug/L	0.50						
1,2-Dichlorobenzene		ND	ug/L	0.50						
1,3-Dichlorobenzene		ND	ug/L	0.50						
1,4-Dichlorobenzene		ND	ug/L	0.50						
Dichlorodifluoromethane		ND	ug/L	0.50						
1,1-Dichloroethane		ND	ug/L	0.50						
1,2-Dichloroethane		ND	ug/L	0.50						
1,1-Dichloroethene		ND	ug/L	0.50						
cis-1,2-Dichloroethene		ND	ug/L	0.50						

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8260B											
Batch: R200328											
Lab ID: 08-Nov-24_MBLK_5	53	Method Blank		Run: 5973MSD2_241108A				11/08/24 13:25			
trans-1,2-Dichloroethene		ND	ug/L	0.50							
1,2-Dichloropropane		ND	ug/L	0.50							
1,3-Dichloropropane		ND	ug/L	0.50							
2,2-Dichloropropane		ND	ug/L	0.50							
1,1-Dichloropropene		ND	ug/L	0.50							
cis-1,3-Dichloropropene		ND	ug/L	0.30							
trans-1,3-Dichloropropene		ND	ug/L	0.30							
Ethylbenzene		ND	ug/L	0.50							
Methyl tert-butyl ether (MTBE)		ND	ug/L	0.50							
Methyl ethyl ketone		ND	ug/L	10							
Methylene chloride		ND	ug/L	0.50							
Styrene		ND	ug/L	0.50							
1,1,1,2-Tetrachloroethane		ND	ug/L	0.50							
1,1,1,2,2-Tetrachloroethane		ND	ug/L	0.50							
Tetrachloroethene		ND	ug/L	0.50							
Toluene		ND	ug/L	0.50							
1,1,1-Trichloroethane		ND	ug/L	0.50							
1,1,2-Trichloroethane		ND	ug/L	0.50							
Trichloroethene		ND	ug/L	0.50							
Trichlorofluoromethane		ND	ug/L	0.50							
1,2,3-Trichloropropane		ND	ug/L	0.50							
Vinyl chloride		ND	ug/L	0.40							
m+p-Xylenes		ND	ug/L	0.50							
o-Xylene		ND	ug/L	0.50							
Xylenes, Total		ND	ug/L	0.50							
Surr: 1,2-Dichloroethane-d4				1.0	100	69	131				
Surr: Dibromofluoromethane				1.0	101	70	125				
Surr: p-Bromofluorobenzene				1.0	97	76	123				
Surr: Toluene-d8				1.0	99	80	119				
Lab ID: H24110218-001AMS	53	Sample Matrix Spike		Run: 5973MSD2_241108A				11/08/24 21:53			
Benzene		169	ug/L	10	81	75	120				
Bromobenzene		143	ug/L	10	68	80	125			S	
Bromochloromethane		171	ug/L	10	82	65	130				
Bromodichloromethane		189	ug/L	10	90	79	118				
Bromoform		146	ug/L	10	70	67	128				
Bromomethane		144	ug/L	10	68	51	136				
Carbon tetrachloride		170	ug/L	10	81	75	129				
Chlorobenzene		169	ug/L	10	80	77	127				
Chlorodibromomethane		167	ug/L	10	80	70	126				
Chloroethane		166	ug/L	10	79	70	139				
Chloroform		178	ug/L	10	85	74	125				
Chloromethane		154	ug/L	10	73	64	152				
2-Chlorotoluene		146	ug/L	21	70	78	130			S	
4-Chlorotoluene		156	ug/L	21	74	82	129			S	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

S - Spike recovery outside of advisory limits

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Lab ID: H24110218-001AMS 53 Sample Matrix Spike Run: 5973MSD2_241108A Batch: R200328										
11/08/24 21:53										
1,2-Dibromoethane		165	ug/L	10	79	72	122			
Dibromomethane		191	ug/L	10	91	75	120			
1,2-Dichlorobenzene		165	ug/L	10	79	74	122			
1,3-Dichlorobenzene		164	ug/L	10	78	78	120			
1,4-Dichlorobenzene		170	ug/L	10	81	70	121			
Dichlorodifluoromethane		137	ug/L	10	65	48	152			
1,1-Dichloroethane		166	ug/L	10	79	77	123			
1,2-Dichloroethane		181	ug/L	10	86	64	127			
1,1-Dichloroethene		154	ug/L	10	73	76	130			S
cis-1,2-Dichloroethene		173	ug/L	10	82	74	124			
trans-1,2-Dichloroethene		174	ug/L	10	83	79	124			
1,2-Dichloropropane		183	ug/L	10	87	81	121			
1,3-Dichloropropane		175	ug/L	10	84	72	122			
2,2-Dichloropropane		178	ug/L	21	85	75	139			
1,1-Dichloropropene		170	ug/L	10	81	73	130			
cis-1,3-Dichloropropene		181	ug/L	10	86	74	128			
trans-1,3-Dichloropropene		153	ug/L	10	73	69	122			
Ethylbenzene		166	ug/L	10	79	74	125			
Methyl tert-butyl ether (MTBE)		168	ug/L	10	80	66	129			
Methyl ethyl ketone		1750	ug/L	420	83	63	136			
Methylene chloride		167	ug/L	21	80	69	128			
Styrene		178	ug/L	10	85	75	123			
1,1,1,2-Tetrachloroethane		160	ug/L	10	76	76	124			
1,1,2,2-Tetrachloroethane		156	ug/L	10	74	67	124			
Tetrachloroethene		357	ug/L	10	71	77	136			S
Toluene		170	ug/L	10	81	82	125			S
1,1,1-Trichloroethane		168	ug/L	10	80	73	134			
1,1,2-Trichloroethane		166	ug/L	10	79	72	119			
Trichloroethene		188	ug/L	10	89	72	132			
Trichlorofluoromethane		147	ug/L	10	70	73	137			S
1,2,3-Trichloropropane		151	ug/L	10	72	71	126			
Vinyl chloride		145	ug/L	10	69	68	140			
m+p-Xylenes		335	ug/L	21	80	84	128			S
o-Xylene		164	ug/L	10	78	79	126			S
Xylenes, Total		500	ug/L	10	79	81	127			S
Surr: 1,2-Dichloroethane-d4				42	99	69	131			
Surr: Dibromofluoromethane				42	99	70	125			
Surr: p-Bromofluorobenzene				42	88	76	123			
Surr: Toluene-d8				42	99	80	119			
Lab ID: H24110218-001AMSD 53 Sample Matrix Spike Duplicate Run: 5973MSD2_241108A 11/08/24 22:25										
Benzene		183	ug/L	10	87	75	120	7.7	20	
Bromobenzene		159	ug/L	10	76	80	125	11	20	S
Bromochloromethane		187	ug/L	10	89	65	130	8.7	20	
Bromodichloromethane		191	ug/L	10	91	79	118	1.0	20	

Qualifiers:

RL - Analyte Reporting Limit

S - Spike recovery outside of advisory limits

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8260B											
Lab ID: H24110218-001AMSD	53	Sample Matrix Spike Duplicate		Run: 5973MSD2_241108A				Batch: R200328			
										11/08/24 22:25	
Bromoform		162	ug/L	10	77	67	128	10	20		
Bromomethane		178	ug/L	10	85	51	136	21	20	R	
Carbon tetrachloride		186	ug/L	10	88	75	129	8.9	20		
Chlorobenzene		176	ug/L	10	84	77	127	4.1	20		
Chlorodibromomethane		175	ug/L	10	83	70	126	4.7	20		
Chloroethane		192	ug/L	10	91	70	139	15	20		
Chloroform		192	ug/L	10	92	74	125	7.8	20		
Chloromethane		164	ug/L	10	78	64	152	6.1	20		
2-Chlorotoluene		166	ug/L	21	79	78	130	13	20		
4-Chlorotoluene		177	ug/L	21	84	82	129	12	20		
1,2-Dibromoethane		176	ug/L	10	84	72	122	6.3	20		
Dibromomethane		196	ug/L	10	93	75	120	2.1	20		
1,2-Dichlorobenzene		179	ug/L	10	85	74	122	8.1	20		
1,3-Dichlorobenzene		176	ug/L	10	84	78	120	6.7	20		
1,4-Dichlorobenzene		182	ug/L	10	87	70	121	7.0	20		
Dichlorodifluoromethane		133	ug/L	10	63	48	152	2.7	20		
1,1-Dichloroethane		180	ug/L	10	86	77	123	8.2	20		
1,2-Dichloroethane		188	ug/L	10	90	64	127	4.2	20		
1,1-Dichloroethene		166	ug/L	10	79	76	130	7.9	20		
cis-1,2-Dichloroethene		185	ug/L	10	88	74	124	6.4	20		
trans-1,2-Dichloroethene		184	ug/L	10	88	79	124	5.5	20		
1,2-Dichloropropane		187	ug/L	10	89	81	121	2.6	20		
1,3-Dichloropropane		188	ug/L	10	89	72	122	6.9	20		
2,2-Dichloropropane		194	ug/L	21	92	75	139	8.6	20		
1,1-Dichloropropene		187	ug/L	10	89	73	130	9.7	20		
cis-1,3-Dichloropropene		183	ug/L	10	87	74	128	1.6	20		
trans-1,3-Dichloropropene		161	ug/L	10	77	69	122	5.3	20		
Ethylbenzene		178	ug/L	10	85	74	125	6.6	20		
Methyl tert-butyl ether (MTBE)		183	ug/L	10	87	66	129	8.6	20		
Methyl ethyl ketone		1750	ug/L	420	83	63	136	0.3	20		
Methylene chloride		179	ug/L	21	85	69	128	6.9	20		
Styrene		185	ug/L	10	88	75	123	4.3	20		
1,1,1,2-Tetrachloroethane		169	ug/L	10	81	76	124	5.4	20		
1,1,2,2-Tetrachloroethane		174	ug/L	10	83	67	124	11	20		
Tetrachloroethene		361	ug/L	10	73	77	136	1.3	20	S	
Toluene		182	ug/L	10	87	82	125	6.9	20		
1,1,1-Trichloroethane		182	ug/L	10	87	73	134	8.5	20		
1,1,2-Trichloroethane		184	ug/L	10	87	72	119	9.9	20		
Trichloroethene		192	ug/L	10	91	72	132	2.4	20		
Trichlorofluoromethane		174	ug/L	10	83	73	137	17	20		
1,2,3-Trichloropropane		165	ug/L	10	78	71	126	8.8	20		
Vinyl chloride		156	ug/L	10	74	68	140	7.4	20		
m+p-Xylenes		352	ug/L	21	84	84	128	4.9	20		
o-Xylene		174	ug/L	10	83	79	126	5.9	20		
Xylenes, Total		527	ug/L	10	84	81	127	5.2	20		

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

S - Spike recovery outside of advisory limits

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Lab ID: H24110218-001AMSD 53 Sample Matrix Spike Duplicate										
Surr: 1,2-Dichloroethane-d4										
Surr: Dibromofluoromethane										
Surr: p-Bromofluorobenzene										
Surr: Toluene-d8										
Run: 5973MSD2_241108A										
				42	100	69	131			
				42	99	70	125			
				42	88	76	123			
				42	99	80	119			

Batch: R200328

11/08/24 22:25

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Lab ID: MB-194826	18	Method Blank								
										Batch: B_194826
										11/08/24 15:14
1-Methylnaphthalene		ND	mg/kg	0.0033						
2-Methylnaphthalene		ND	mg/kg	0.0033						
Acenaphthene		ND	mg/kg	0.0033						
Acenaphthylene		ND	mg/kg	0.0033						
Anthracene		ND	mg/kg	0.0033						
Benzo(a)anthracene		ND	mg/kg	0.0033						
Benzo(a)pyrene		ND	mg/kg	0.0033						
Benzo(b)fluoranthene		ND	mg/kg	0.0033						
Benzo(g,h,i)perylene		ND	mg/kg	0.0033						
Benzo(k)fluoranthene		ND	mg/kg	0.0033						
Chrysene		ND	mg/kg	0.0033						
Dibenzo(a,h)anthracene		ND	mg/kg	0.0033						
Fluoranthene		ND	mg/kg	0.0033						
Fluorene		ND	mg/kg	0.0033						
Indeno(1,2,3-cd)pyrene		ND	mg/kg	0.0033						
Naphthalene		ND	mg/kg	0.0033						
Phenanthrene		ND	mg/kg	0.0033						
Pyrene		ND	mg/kg	0.0033						
Lab ID: LLCS-194826	21	Laboratory Control Sample								
										Run: SUB-B432146
										11/08/24 16:19
1-Methylnaphthalene		0.102	mg/kg	0.0033	61	54	126	0.0	40	
2-Methylnaphthalene		0.107	mg/kg	0.0033	64	54	113	0.0	40	
Acenaphthene		0.124	mg/kg	0.0033	74	54	111	0.0	40	
Acenaphthylene		0.110	mg/kg	0.0033	66	53	113	0.0	40	
Anthracene		0.130	mg/kg	0.0033	78	66	109	0.0	40	
Benzo(a)anthracene		0.144	mg/kg	0.0033	86	51	121	0.0	40	
Benzo(a)pyrene		0.144	mg/kg	0.0033	86	62	114	0.0	40	
Benzo(b)fluoranthene		0.159	mg/kg	0.0033	95	50	128	0.0	40	
Benzo(g,h,i)perylene		0.155	mg/kg	0.0033	93	62	116	0.0	40	
Benzo(k)fluoranthene		0.148	mg/kg	0.0033	89	47	127	0.0	40	
Chrysene		0.157	mg/kg	0.0033	94	56	119	0.0	40	
Dibenzo(a,h)anthracene		0.159	mg/kg	0.0033	95	63	113	0.0	40	
Fluoranthene		0.154	mg/kg	0.0033	92	70	115	0.0	40	
Fluorene		0.129	mg/kg	0.0033	77	53	118	0.0	40	
Indeno(1,2,3-cd)pyrene		0.155	mg/kg	0.0033	93	57	119	0.0	40	
Naphthalene		0.107	mg/kg	0.0033	64	50	109	0.0	40	
Phenanthrene		0.143	mg/kg	0.0033	86	63	116	0.0	40	
Pyrene		0.150	mg/kg	0.0033	90	62	113	0.0	40	
Surr: 2-Fluorobiphenyl				0.0033	57	47	110			
Surr: Nitrobenzene-d5				0.0033	54	43	105			
Surr: Terphenyl-d14				0.0033	78	51	117			
Lab ID: H24110085-006ALMS	21	Sample Matrix Spike								
										Run: SUB-B432146
										11/08/24 20:11
1-Methylnaphthalene		0.0997	mg/kg-dry	0.0034	59	54	126			
2-Methylnaphthalene		0.105	mg/kg-dry	0.0034	62	54	113	0.0	40	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Lab ID: H24110085-006ALMS 21 Sample Matrix Spike										
Run: SUB-B432146										
Batch: B_194826										
11/08/24 20:11										
Acenaphthene		0.126	mg/kg-dry	0.0034	74	54	111	0.0	40	
Acenaphthylene		0.111	mg/kg-dry	0.0034	65	53	113	0.0	40	
Anthracene		0.134	mg/kg-dry	0.0034	79	66	109	0.0	40	
Benzo(a)anthracene		0.149	mg/kg-dry	0.0034	88	51	121	0.0	40	
Benzo(a)pyrene		0.151	mg/kg-dry	0.0034	89	62	114	0.0	40	
Benzo(b)fluoranthene		0.154	mg/kg-dry	0.0034	90	50	128	0.0	40	
Benzo(g,h,i)perylene		0.161	mg/kg-dry	0.0034	95	62	116	0.0	40	
Benzo(k)fluoranthene		0.146	mg/kg-dry	0.0034	85	47	127	0.0	40	
Chrysene		0.153	mg/kg-dry	0.0034	90	56	119	0.0	40	
Dibenzo(a,h)anthracene		0.168	mg/kg-dry	0.0034	99	63	113	0.0	40	
Fluoranthene		0.152	mg/kg-dry	0.0034	89	70	115	0.0	40	
Fluorene		0.130	mg/kg-dry	0.0034	76	53	118	0.0	40	
Indeno(1,2,3-cd)pyrene		0.156	mg/kg-dry	0.0034	91	57	119	0.0	40	
Naphthalene		0.108	mg/kg-dry	0.0034	63	50	109	0.0	40	
Phenanthrene		0.140	mg/kg-dry	0.0034	82	63	116	0.0	40	
Pyrene		0.150	mg/kg-dry	0.0034	88	62	113	0.0	40	
Surr: 2-Fluorobiphenyl				0.0034	73	47	110			
Surr: Nitrobenzene-d5				0.0034	66	43	105			
Surr: Terphenyl-d14				0.0034	101	51	117			
Lab ID: H24110085-006ALMSD 21 Sample Matrix Spike Duplicate										
Run: SUB-B432146										
11/08/24 20:43										
1-Methylnaphthalene		0.110	mg/kg-dry	0.0034	64	54	126	9.7	40	
2-Methylnaphthalene		0.122	mg/kg-dry	0.0034	72	54	113	15	40	
Acenaphthene		0.140	mg/kg-dry	0.0034	82	54	111	10	40	
Acenaphthylene		0.126	mg/kg-dry	0.0034	74	53	113	12	40	
Anthracene		0.151	mg/kg-dry	0.0034	89	66	109	12	40	
Benzo(a)anthracene		0.166	mg/kg-dry	0.0034	97	51	121	11	40	
Benzo(a)pyrene		0.169	mg/kg-dry	0.0034	99	62	114	11	40	
Benzo(b)fluoranthene		0.172	mg/kg-dry	0.0034	101	50	128	12	40	
Benzo(g,h,i)perylene		0.178	mg/kg-dry	0.0034	104	62	116	9.9	40	
Benzo(k)fluoranthene		0.169	mg/kg-dry	0.0034	99	47	127	15	40	
Chrysene		0.168	mg/kg-dry	0.0034	99	56	119	9.7	40	
Dibenzo(a,h)anthracene		0.178	mg/kg-dry	0.0034	105	63	113	5.9	40	
Fluoranthene		0.168	mg/kg-dry	0.0034	99	70	115	10	40	
Fluorene		0.143	mg/kg-dry	0.0034	84	53	118	9.7	40	
Indeno(1,2,3-cd)pyrene		0.175	mg/kg-dry	0.0034	103	57	119	12	40	
Naphthalene		0.120	mg/kg-dry	0.0034	70	50	109	11	40	
Phenanthrene		0.156	mg/kg-dry	0.0034	92	63	116	11	40	
Pyrene		0.167	mg/kg-dry	0.0034	98	62	113	11	40	
Surr: 2-Fluorobiphenyl				0.0034	62	47	110			
Surr: Nitrobenzene-d5				0.0034	60	43	105			
Surr: Terphenyl-d14				0.0034	84	51	117			
Lab ID: MB-194826 39 Method Blank										
Run: SUB-B432332										
11/12/24 23:14										
1-Methylnaphthalene		ND	mg/kg	0.33						

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8270E											
Lab ID: MB-194826	39 Method Blank			Run: SUB-B432332				Batch: B_194826			
										11/12/24 23:14	
2,4,5-Trichlorophenol		ND	mg/kg	0.33							
2,4,6-Trichlorophenol		ND	mg/kg	0.33							
2,4-Dichlorophenol		ND	mg/kg	0.33							
2,4-Dimethylphenol		ND	mg/kg	0.33							
2,4-Dinitrophenol		ND	mg/kg	0.33							
2-Chlorophenol		ND	mg/kg	0.33							
2-Methylnaphthalene		ND	mg/kg	0.33							
2-Nitrophenol		ND	mg/kg	0.33							
4,6-Dinitro-2-methylphenol		ND	mg/kg	0.33							
4-Chloro-3-methylphenol		ND	mg/kg	0.33							
4-Chlorophenol		ND	mg/kg	0.33							
4-Nitrophenol		ND	mg/kg	0.33							
Acenaphthene		ND	mg/kg	0.33							
Acenaphthylene		ND	mg/kg	0.33							
Anthracene		ND	mg/kg	0.33							
Benzo(a)anthracene		ND	mg/kg	0.33							
Benzo(a)pyrene		ND	mg/kg	0.33							
Benzo(b)fluoranthene		ND	mg/kg	0.33							
Benzo(g,h,i)perylene		ND	mg/kg	0.33							
Benzo(k)fluoranthene		ND	mg/kg	0.33							
Chrysene		ND	mg/kg	0.33							
Dibenzo(a,h)anthracene		ND	mg/kg	0.33							
Fluoranthene		ND	mg/kg	0.33							
Fluorene		ND	mg/kg	0.33							
Indeno(1,2,3-cd)pyrene		ND	mg/kg	0.33							
m+p-Cresols		ND	mg/kg	0.33							
Naphthalene		ND	mg/kg	0.33							
o-Cresol		ND	mg/kg	0.33							
Pentachlorophenol		ND	mg/kg	0.33							
Phenanthrene		ND	mg/kg	0.33							
Phenol		ND	mg/kg	0.33							
Pyrene		ND	mg/kg	0.33							
Surr: 2,4,6-Tribromophenol				0.33	108	54	137				
Surr: 2-Fluorobiphenyl				0.33	76	55	99				
Surr: 2-Fluorophenol				0.33	79	27	138				
Surr: Nitrobenzene-d5				0.33	71	36	115				
Surr: Phenol-d5				0.33	77	52	109				
Surr: Terphenyl-d14				0.33	112	61	121				
Lab ID: LCS-194826											
	39 Laboratory Control Sample			Run: SUB-B432332				11/12/24 23:47			
1-Methylnaphthalene		2.92	mg/kg	0.33	88	52	101	0.0	40		
2,4,5-Trichlorophenol		3.40	mg/kg	0.33	102	44	151	0.0	40		
2,4,6-Trichlorophenol		3.47	mg/kg	0.33	104	54	137	0.0	40		
2,4-Dichlorophenol		3.27	mg/kg	0.33	98	26	162	0.0	40		
2,4-Dimethylphenol		2.94	mg/kg	0.33	88	40	137	0.0	40		

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Batch: B_194826											
Method:	SW8270E			Run: SUB-B432332				11/12/24 23:47			
Lab ID:	LCS-194826			39 Laboratory Control Sample							
2,4-Dinitrophenol		2.61	mg/kg	0.33	78	42	148	0.0		40	
2-Chlorophenol		2.89	mg/kg	0.33	87	18	155	0.0		40	
2-Methylnaphthalene		3.20	mg/kg	0.33	96	42	132	0.0		40	
2-Nitrophenol		3.09	mg/kg	0.33	93	39	138	0.0		40	
4,6-Dinitro-2-methylphenol		3.04	mg/kg	0.33	91	45	135	0.0		40	
4-Chloro-3-methylphenol		3.27	mg/kg	0.33	98	49	134	0.0		40	
4-Chlorophenol		3.42	mg/kg	0.33	103	59	110	0.0		40	
4-Nitrophenol		3.03	mg/kg	0.33	91	45	149	0.0		40	
Acenaphthene		3.45	mg/kg	0.33	104	48	149	0.0		40	
Acenaphthylene		3.06	mg/kg	0.33	92	47	123	0.0		40	
Anthracene		3.25	mg/kg	0.33	97	54	133	0.0		40	
Benzo(a)anthracene		3.29	mg/kg	0.33	99	53	144	0.0		40	
Benzo(a)pyrene		3.29	mg/kg	0.33	99	54	148	0.0		40	
Benzo(b)fluoranthene		3.29	mg/kg	0.33	99	56	141	0.0		40	
Benzo(g,h,i)perylene		3.33	mg/kg	0.33	100	53	135	0.0		40	
Benzo(k)fluoranthene		3.33	mg/kg	0.33	100	55	132	0.0		40	
Chrysene		3.20	mg/kg	0.33	96	55	132	0.0		40	
Dibenzo(a,h)anthracene		3.37	mg/kg	0.33	101	45	157	0.0		40	
Fluoranthene		3.33	mg/kg	0.33	100	57	142	0.0		40	
Fluorene		3.42	mg/kg	0.33	103	53	133	0.0		40	
Indeno(1,2,3-cd)pyrene		3.49	mg/kg	0.33	105	48	131	0.0		40	
m+p-Cresols		3.45	mg/kg	0.33	103	53	152	0.0		40	
Naphthalene		2.67	mg/kg	0.33	80	45	129	0.0		40	
o-Cresol		2.88	mg/kg	0.33	87	38	116	0.0		40	
Pentachlorophenol		2.85	mg/kg	0.33	85	44	124	0.0		40	
Phenanthrene		3.47	mg/kg	0.33	104	47	156	0.0		40	
Phenol		3.34	mg/kg	0.33	100	52	131	0.0		40	
Pyrene		2.88	mg/kg	0.33	87	41	126	0.0		40	
Surr: 2,4,6-Tribromophenol		3.46	mg/kg	0.33	104	53	136	0.0		40	
Surr: 2-Fluorobiphenyl				0.33	126	54	137				
Surr: 2-Fluorophenol				0.33	89	55	99				
Surr: Nitrobenzene-d5				0.33	92	27	138				
Surr: Phenol-d5				0.33	83	36	115				
Surr: Terphenyl-d14				0.33	86	52	109				
				0.33	110	61	121				
Batch: B_194826											
Lab ID:	B24110091-003AMS			39 Sample Matrix Spike				Run: SUB-B432332			
1-Methylnaphthalene		2.90	mg/kg-dry	0.36	80	52	101	0.0		40	
2,4,5-Trichlorophenol		3.45	mg/kg-dry	0.36	96	44	151	0.0		40	
2,4,6-Trichlorophenol		3.46	mg/kg-dry	0.36	96	54	137	0.0		40	
2,4-Dichlorophenol		3.39	mg/kg-dry	0.36	94	26	162	0.0		40	
2,4-Dimethylphenol		2.95	mg/kg-dry	0.36	82	40	137	0.0		40	
2,4-Dinitrophenol		1.82	mg/kg-dry	0.36	50	42	148	0.0		40	
2-Chlorophenol		2.99	mg/kg-dry	0.36	83	18	155	0.0		40	
2-Methylnaphthalene		3.12	mg/kg-dry	0.36	87	42	132	0.0		40	
2-Nitrophenol		3.20	mg/kg-dry	0.36	89	39	138	0.0		40	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Lab ID: B24110091-003AMS	39	Sample Matrix Spike		Run: SUB-B432332			Batch: B_194826			
4,6-Dinitro-2-methylphenol		2.84	mg/kg-dry	0.36	79	45	135	0.0	40	11/13/24 01:58
4-Chloro-3-methylphenol		3.31	mg/kg-dry	0.36	92	49	134	0.0	40	
4-Chlorophenol		3.64	mg/kg-dry	0.36	101	59	110	0.0	40	
4-Nitrophenol		3.07	mg/kg-dry	0.36	85	45	149	0.0	40	
Acenaphthene		3.53	mg/kg-dry	0.36	98	48	149	0.0	40	
Acenaphthylene		3.05	mg/kg-dry	0.36	85	47	123	0.0	40	
Anthracene		3.28	mg/kg-dry	0.36	91	54	133	0.0	40	
Benzo(a)anthracene		3.55	mg/kg-dry	0.36	99	53	144	0.0	40	
Benzo(a)pyrene		3.76	mg/kg-dry	0.36	104	54	148	0.0	40	
Benzo(b)fluoranthene		3.66	mg/kg-dry	0.36	102	56	141	0.0	40	
Benzo(g,h,i)perylene		3.79	mg/kg-dry	0.36	105	53	135	0.0	40	
Benzo(k)fluoranthene		3.52	mg/kg-dry	0.36	98	55	132	0.0	40	
Chrysene		3.60	mg/kg-dry	0.36	100	45	157	0.0	40	
Dibenzo(a,h)anthracene		3.69	mg/kg-dry	0.36	103	57	142	0.0	40	
Fluoranthene		3.52	mg/kg-dry	0.36	98	53	133	0.0	40	
Fluorene		3.49	mg/kg-dry	0.36	97	48	131	0.0	40	
Indeno(1,2,3-cd)pyrene		3.75	mg/kg-dry	0.36	104	53	152	0.0	40	
m+p-Cresols		2.76	mg/kg-dry	0.36	77	45	129	0.0	40	
Naphthalene		2.75	mg/kg-dry	0.36	76	38	116	0.0	40	
o-Cresol		2.90	mg/kg-dry	0.36	81	44	124	0.0	40	
Pentachlorophenol		3.29	mg/kg-dry	0.36	92	47	156	0.0	40	
Phenanthrene		3.43	mg/kg-dry	0.36	95	52	131	0.0	40	
Phenol		3.03	mg/kg-dry	0.36	84	41	126	0.0	40	
Pyrene		3.49	mg/kg-dry	0.36	97	53	136	0.0	40	
Surr: 2,4,6-Tribromophenol				0.36	117	54	137			
Surr: 2-Fluorobiphenyl				0.36	83	55	99			
Surr: 2-Fluorophenol				0.36	82	27	138			
Surr: Nitrobenzene-d5				0.36	75	36	115			
Surr: Phenol-d5				0.36	84	52	109			
Surr: Terphenyl-d14				0.36	102	61	121			
Lab ID: B24110091-003AMSD	39	Sample Matrix Spike Duplicate		Run: SUB-B432332			11/13/24 02:31			
1-Methylnaphthalene		2.99	mg/kg-dry	0.36	83	52	101	3.2	40	
2,4,5-Trichlorophenol		3.29	mg/kg-dry	0.36	91	44	151	4.7	40	
2,4,6-Trichlorophenol		3.41	mg/kg-dry	0.36	95	54	137	1.4	40	
2,4-Dichlorophenol		3.47	mg/kg-dry	0.36	96	26	162	2.3	40	
2,4-Dimethylphenol		3.01	mg/kg-dry	0.36	83	40	137	2.0	40	
2,4-Dinitrophenol		2.06	mg/kg-dry	0.36	57	42	148	12	40	
2-Chlorophenol		2.75	mg/kg-dry	0.36	76	18	155	8.4	40	
2-Methylnaphthalene		3.24	mg/kg-dry	0.36	90	42	132	3.7	40	
2-Nitrophenol		3.07	mg/kg-dry	0.36	85	39	138	4.2	40	
4,6-Dinitro-2-methylphenol		3.03	mg/kg-dry	0.36	84	45	135	6.3	40	
4-Chloro-3-methylphenol		3.40	mg/kg-dry	0.36	94	49	134	2.7	40	
4-Chlorophenol		3.77	mg/kg-dry	0.36	105	59	110	3.7	40	
4-Nitrophenol		3.16	mg/kg-dry	0.36	88	45	149	2.8	40	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Report Date: 11/18/24

Work Order: H24110085

Table with columns: Analyte, Count, Result, Units, RL, %REC, Low Limit, High Limit, RPD, RPDLimit, Qual. Includes data for various analytes like Acenaphthene, Anthracene, etc., and a summary of 39 Sample Matrix Spike Duplicate runs.

Batch: B_194826

11/13/24 02:31

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8270E											
Lab ID: MB-194872	39 Method Blank			Run: SUB-B432409				Batch: B_194872			
										11/13/24 14:22	
1-Methylnaphthalene		ND	ug/L	10							
2,4,5-Trichlorophenol		ND	ug/L	10							
2,4,6-Trichlorophenol		ND	ug/L	10							
2,4-Dichlorophenol		ND	ug/L	10							
2,4-Dimethylphenol		ND	ug/L	10							
2,4-Dinitrophenol		ND	ug/L	10							
2-Chlorophenol		ND	ug/L	10							
2-Methylnaphthalene		ND	ug/L	10							
2-Nitrophenol		ND	ug/L	10							
4,6-Dinitro-2-methylphenol		ND	ug/L	10							
4-Chloro-3-methylphenol		ND	ug/L	10							
4-Chlorophenol		ND	ug/L	10							
4-Nitrophenol		ND	ug/L	10							
Acenaphthene		ND	ug/L	10							
Acenaphthylene		ND	ug/L	10							
Anthracene		ND	ug/L	10							
Benzo(a)anthracene		ND	ug/L	10							
Benzo(a)pyrene		ND	ug/L	10							
Benzo(b)fluoranthene		ND	ug/L	10							
Benzo(g,h,i)perylene		ND	ug/L	10							
Benzo(k)fluoranthene		ND	ug/L	10							
Chrysene		ND	ug/L	10							
Dibenzo(a,h)anthracene		ND	ug/L	10							
Fluoranthene		ND	ug/L	10							
Fluorene		ND	ug/L	10							
Indeno(1,2,3-cd)pyrene		ND	ug/L	10							
m+p-Cresols		ND	ug/L	10							
Naphthalene		ND	ug/L	10							
o-Cresol		ND	ug/L	10							
Pentachlorophenol		ND	ug/L	10							
Phenanthrene		ND	ug/L	10							
Phenol		ND	ug/L	10							
Pyrene		ND	ug/L	10							
Surr: 2,4,6-Tribromophenol				10	53	25	140				
Surr: 2-Fluorobiphenyl				10	64	28	107				
Surr: 2-Fluorophenol				10	34	10	75				
Surr: Nitrobenzene-d5				10	57	32	94				
Surr: Phenol-d5				10	39	10	65				
Surr: Terphenyl-d14				10	73	32	122				
Lab ID: LCS-194872											
	39 Laboratory Control Sample			Run: SUB-B432409				11/13/24 14:53			
1-Methylnaphthalene		67.5	ug/L	10	67	39	92				
2,4,5-Trichlorophenol		70.3	ug/L	10	70	24	116				
2,4,6-Trichlorophenol		73.3	ug/L	10	73	21	121				
2,4-Dichlorophenol		68.6	ug/L	10	69	19	111				

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

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QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Table with columns: Analyte, Count, Result, Units, RL, %REC, Low Limit, High Limit, RPD, RPDLimit, Qual. Includes data for Laboratory Control Sample and Sample Matrix Spike.

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8270E											
Lab ID: H24110085-011BMS	39	Sample Matrix Spike		Run: SUB-B432409				Batch: B_194872			
2-Nitrophenol		53.6	ug/L	20	54	17	118	0.0	40		
4,6-Dinitro-2-methylphenol		77.1	ug/L	20	77	10	119	0.0	40		
4-Chloro-3-methylphenol		68.2	ug/L	20	68	23	119	0.0	40		
4-Chlorophenol		61.6	ug/L	20	62	33	94	0.0	40		
4-Nitrophenol		55.2	ug/L	20	55	10	72	0.0	40		
Acenaphthene		79.2	ug/L	20	79	29	127	0.0	40		
Acenaphthylene		72.8	ug/L	20	73	28	116	0.0	40		
Anthracene		78.2	ug/L	20	78	37	129	0.0	40		
Benzo(a)anthracene		82.1	ug/L	20	82	36	137	0.0	40		
Benzo(a)pyrene		80.4	ug/L	20	80	35	133	0.0	40		
Benzo(b)fluoranthene		78.7	ug/L	20	79	37	133	0.0	40		
Benzo(g,h,i)perylene		80.2	ug/L	20	80	35	127	0.0	40		
Benzo(k)fluoranthene		79.1	ug/L	20	79	37	125	0.0	40		
Chrysene		79.3	ug/L	20	79	38	134	0.0	40		
Dibenzo(a,h)anthracene		82.5	ug/L	20	83	37	136	0.0	40		
Fluoranthene		78.1	ug/L	20	78	38	126	0.0	40		
Fluorene		79.8	ug/L	20	80	33	124	0.0	40		
Indeno(1,2,3-cd)pyrene		77.4	ug/L	20	77	35	136	0.0	40		
m+p-Cresols		69.6	ug/L	20	70	18	102	0.0	40		
Naphthalene		56.6	ug/L	20	57	16	106	0.0	40		
o-Cresol		61.7	ug/L	20	62	19	102	0.0	40		
Pentachlorophenol		67.0	ug/L	20	67	10	144	0.0	40		
Phenanthrene		81.6	ug/L	20	82	34	129	0.0	40		
Phenol		52.4	ug/L	20	52	10	67	0.0	40		
Pyrene		79.6	ug/L	20	80	39	124	0.0	40		
Surr: 2,4,6-Tribromophenol				20	76	25	140				
Surr: 2-Fluorobiphenyl				20	69	28	107				
Surr: 2-Fluorophenol				20	46	10	75				
Surr: Nitrobenzene-d5				20	62	32	94				
Surr: Phenol-d5				20	51	10	65				
Surr: Terphenyl-d14				20	77	32	122				
Lab ID: H24110085-012BMS											
39	Sample Matrix Spike		Run: SUB-B432409				11/13/24 19:25				
1-Methylnaphthalene		62.4	ug/L	20	62	39	92	0.0	40		
2,4,5-Trichlorophenol		69.6	ug/L	20	70	24	116	0.0	40		
2,4,6-Trichlorophenol		71.0	ug/L	20	71	21	121	0.0	40		
2,4-Dichlorophenol		59.5	ug/L	20	59	19	111	0.0	40		
2,4-Dimethylphenol		59.2	ug/L	20	59	17	108	0.0	40		
2,4-Dinitrophenol		65.3	ug/L	20	65	10	118	0.0	40		
2-Chlorophenol		56.0	ug/L	20	56	19	97	0.0	40		
2-Methylnaphthalene		65.5	ug/L	20	66	23	118	0.0	40		
2-Nitrophenol		56.4	ug/L	20	56	17	118	0.0	40		
4,6-Dinitro-2-methylphenol		76.9	ug/L	20	77	10	119	0.0	40		
4-Chloro-3-methylphenol		67.9	ug/L	20	68	23	119	0.0	40		
4-Chlorophenol		59.1	ug/L	20	59	33	94	0.0	40		

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8270E											
Lab ID: H24110085-012BMS	39	Sample Matrix Spike		Run: SUB-B432409				Batch: B_194872			
4-Nitrophenol		49.5	ug/L	20	50	10	72	0.0		40	
Acenaphthene		82.0	ug/L	20	82	29	127	0.0		40	
Acenaphthylene		73.2	ug/L	20	73	28	116	0.0		40	
Anthracene		79.7	ug/L	20	80	37	129	0.0		40	
Benzo(a)anthracene		84.6	ug/L	20	85	36	137	0.0		40	
Benzo(a)pyrene		85.9	ug/L	20	86	35	133	0.0		40	
Benzo(b)fluoranthene		80.8	ug/L	20	81	37	133	0.0		40	
Benzo(g,h,i)perylene		83.1	ug/L	20	83	35	127	0.0		40	
Benzo(k)fluoranthene		85.7	ug/L	20	86	37	125	0.0		40	
Chrysene		83.6	ug/L	20	84	38	134	0.0		40	
Dibenzo(a,h)anthracene		83.3	ug/L	20	83	37	136	0.0		40	
Fluoranthene		81.4	ug/L	20	81	38	126	0.0		40	
Fluorene		82.6	ug/L	20	83	33	124	0.0		40	
Indeno(1,2,3-cd)pyrene		84.4	ug/L	20	84	35	136	0.0		40	
m+p-Cresols		67.1	ug/L	20	67	18	102	0.0		40	
Naphthalene		56.7	ug/L	20	57	16	106	0.0		40	
o-Cresol		63.3	ug/L	20	63	19	102	0.0		40	
Pentachlorophenol		65.5	ug/L	20	66	10	144	0.0		40	
Phenanthrene		81.8	ug/L	20	82	34	129	0.0		40	
Phenol		52.7	ug/L	20	53	10	67	0.0		40	
Pyrene		83.3	ug/L	20	83	39	124	0.0		40	
Surr: 2,4,6-Tribromophenol				20	76	25	140				
Surr: 2-Fluorobiphenyl				20	71	28	107				
Surr: 2-Fluorophenol				20	41	10	75				
Surr: Nitrobenzene-d5				20	64	32	94				
Surr: Phenol-d5				20	48	10	65				
Surr: Terphenyl-d14				20	77	32	122				
Lab ID: MB-194872	18	Method Blank		Run: SUB-B432485				11/14/24 23:18			
1-Methylnaphthalene		ND	ug/L		0.10						
2-Methylnaphthalene		ND	ug/L		0.10						
Acenaphthene		ND	ug/L		0.10						
Acenaphthylene		ND	ug/L		0.10						
Anthracene		ND	ug/L		0.10						
Benzo(a)anthracene		ND	ug/L		0.10						
Benzo(a)pyrene		ND	ug/L		0.10						
Benzo(b)fluoranthene		ND	ug/L		0.10						
Benzo(g,h,i)perylene		ND	ug/L		0.10						
Benzo(k)fluoranthene		ND	ug/L		0.10						
Chrysene		ND	ug/L		0.10						
Dibenzo(a,h)anthracene		ND	ug/L		0.10						
Fluoranthene		ND	ug/L		0.10						
Fluorene		ND	ug/L		0.10						
Indeno(1,2,3-cd)pyrene		ND	ug/L		0.10						
Naphthalene		ND	ug/L		0.10						

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Lab ID: MB-194872	18	Method Blank								
Phenanthrene		ND	ug/L	0.10						
Pyrene		ND	ug/L	0.10						
Lab ID: LLCS-194872										
	21	Laboratory Control Sample								
1-Methylnaphthalene		2.79	ug/L	0.10	56	15	91	0.0		40
2-Methylnaphthalene		3.16	ug/L	0.10	63	11	92	0.0		40
Acenaphthene		4.28	ug/L	0.10	86	20	105	0.0		40
Acenaphthylene		4.10	ug/L	0.10	82	17	103	0.0		40
Anthracene		4.77	ug/L	0.10	95	27	127	0.0		40
Benzo(a)anthracene		4.58	ug/L	0.10	92	32	134	0.0		40
Benzo(a)pyrene		4.87	ug/L	0.10	97	33	127	0.0		40
Benzo(b)fluoranthene		4.23	ug/L	0.10	85	32	133	0.0		40
Benzo(g,h,i)perylene		4.42	ug/L	0.10	88	27	123	0.0		40
Benzo(k)fluoranthene		4.76	ug/L	0.10	95	30	123	0.0		40
Chrysene		4.83	ug/L	0.10	97	30	136	0.0		40
Dibenzo(a,h)anthracene		5.05	ug/L	0.10	101	30	138	0.0		40
Fluoranthene		4.71	ug/L	0.10	94	28	130	0.0		40
Fluorene		4.29	ug/L	0.10	86	22	115	0.0		40
Indeno(1,2,3-cd)pyrene		4.83	ug/L	0.10	97	30	134	0.0		40
Naphthalene		3.41	ug/L	0.10	68	12	87	0.0		40
Phenanthrene		4.67	ug/L	0.10	93	27	124	0.0		40
Pyrene		3.81	ug/L	0.10	76	27	128	0.0		40
Surr: 2-Fluorobiphenyl				0.10	69	32	101			
Surr: Nitrobenzene-d5				0.10	102	27	114			
Surr: Terphenyl-d14				0.10	87	28	149			
Lab ID: H24110085-009BLMS										
	21	Sample Matrix Spike								
1-Methylnaphthalene		5.65	ug/L	0.20	57	15	91			
2-Methylnaphthalene		5.76	ug/L	0.20	58	11	92			
Acenaphthene		7.46	ug/L	0.20	75	20	105			
Acenaphthylene		7.37	ug/L	0.20	74	17	103			
Anthracene		9.41	ug/L	0.20	94	27	127			
Benzo(a)anthracene		8.56	ug/L	0.20	86	32	134			
Benzo(a)pyrene		9.21	ug/L	0.20	92	33	127			
Benzo(b)fluoranthene		8.30	ug/L	0.20	83	32	133			
Benzo(g,h,i)perylene		8.67	ug/L	0.20	87	27	123			
Benzo(k)fluoranthene		8.68	ug/L	0.20	87	30	123			
Chrysene		8.69	ug/L	0.20	87	30	136			
Dibenzo(a,h)anthracene		9.64	ug/L	0.20	96	30	138			
Fluoranthene		8.96	ug/L	0.20	90	28	130			
Fluorene		7.67	ug/L	0.20	77	22	115			
Indeno(1,2,3-cd)pyrene		9.41	ug/L	0.20	94	30	134			
Naphthalene		6.32	ug/L	0.20	63	12	87			
Phenanthrene		8.90	ug/L	0.20	89	27	124			
Pyrene		7.48	ug/L	0.20	75	27	128			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Lab ID: H24110085-009BLMS 21 Sample Matrix Spike										
Run: SUB-B432485										
Surr: 2-Fluorobiphenyl				0.20	60	32	101			
Surr: Nitrobenzene-d5				0.20	103	27	114			
Surr: Terphenyl-d14				0.20	85	28	149			
Batch: B_194872										
11/15/24 00:55										
Lab ID: H24110085-010BLMS 21 Sample Matrix Spike										
Run: SUB-B432485										
11/15/24 02:00										
1-Methylnaphthalene		5.49	ug/L	0.20	55	15	91			
2-Methylnaphthalene		5.97	ug/L	0.20	60	11	92			
Acenaphthene		7.15	ug/L	0.20	72	20	105			
Acenaphthylene		6.92	ug/L	0.20	69	17	103			
Anthracene		8.51	ug/L	0.20	85	27	127			
Benzo(a)anthracene		7.54	ug/L	0.20	75	32	134			
Benzo(a)pyrene		8.43	ug/L	0.20	84	33	127			
Benzo(b)fluoranthene		7.21	ug/L	0.20	72	32	133			
Benzo(g,h,i)perylene		7.24	ug/L	0.20	72	27	123			
Benzo(k)fluoranthene		7.98	ug/L	0.20	80	30	123			
Chrysene		7.88	ug/L	0.20	79	30	136			
Dibenzo(a,h)anthracene		8.52	ug/L	0.20	85	30	138			
Fluoranthene		7.93	ug/L	0.20	79	28	130			
Fluorene		6.54	ug/L	0.20	65	22	115			
Indeno(1,2,3-cd)pyrene		8.32	ug/L	0.20	83	30	134			
Naphthalene		6.31	ug/L	0.20	63	12	87			
Phenanthrene		8.14	ug/L	0.20	81	27	124			
Pyrene		6.54	ug/L	0.20	65	27	128			
Surr: 2-Fluorobiphenyl				0.20	61	32	101			
Surr: Nitrobenzene-d5				0.20	100	27	114			
Surr: Terphenyl-d14				0.20	79	28	149			

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Analytical Run: B_R432146										
Lab ID: 07-Nov-24_CCV_45	18 Continuing Calibration Verification Standard									
11/08/24 14:08										
1-Methylnaphthalene		0.0673	mg/kg	0.0033	101	80	120			
2-Methylnaphthalene		0.0757	mg/kg	0.0033	114	80	120			
Acenaphthene		0.0651	mg/kg	0.0033	98	80	120			
Acenaphthylene		0.0610	mg/kg	0.0033	91	80	120			
Anthracene		0.0788	mg/kg	0.0033	118	80	120			
Benzo(a)anthracene		0.0623	mg/kg	0.0033	93	80	120			
Benzo(a)pyrene		0.0712	mg/kg	0.0033	107	80	120			
Benzo(b)fluoranthene		0.0585	mg/kg	0.0033	88	80	120			
Benzo(g,h,i)perylene		0.0559	mg/kg	0.0033	84	80	120			
Benzo(k)fluoranthene		0.0581	mg/kg	0.0033	87	80	120			
Chrysene		0.0670	mg/kg	0.0033	100	80	120			
Dibenzo(a,h)anthracene		0.0618	mg/kg	0.0033	93	80	120			
Fluoranthene		0.0664	mg/kg	0.0033	100	80	120			
Fluorene		0.0562	mg/kg	0.0033	84	80	120			
Indeno(1,2,3-cd)pyrene		0.0547	mg/kg	0.0033	82	80	120			
Naphthalene		0.0718	mg/kg	0.0033	108	80	120			
Phenanthrene		0.0797	mg/kg	0.0033	120	80	120			
Pyrene		0.0618	mg/kg	0.0033	93	80	120			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

NOV 25 2024



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Analytical Run: B_R432332										
Lab ID: 11-Nov-24_CCV_25	21	Continuing Calibration Verification Standard								11/12/24 20:30
2,4,5-Trichlorophenol		84.6	ug/L	10	113	80	120	0.0	40	
2,4,6-Trichlorophenol		86.5	ug/L	10	115	80	120	0.0	40	
2,4-Dichlorophenol		83.1	ug/L	10	111	80	120	0.0	40	
2,4-Dimethylphenol		74.8	ug/L	10	100	80	120	0.0	40	
2,4-Dinitrophenol		62.9	ug/L	10	84	80	120	0.0	40	
2-Chlorophenol		81.6	ug/L	10	109	80	120	0.0	40	
2-Nitrophenol		89.2	ug/L	10	119	80	120	0.0	40	
4,6-Dinitro-2-methylphenol		73.1	ug/L	10	97	80	120	0.0	40	
4-Chloro-3-methylphenol		79.0	ug/L	10	105	80	120	0.0	40	
4-Chlorophenol		88.3	ug/L	10	118	80	120	0.0	40	
4-Nitrophenol		73.7	ug/L	10	98	80	120	0.0	40	
m+p-Cresols		71.5	ug/L	10	95	80	120	0.0	40	
o-Cresol		73.9	ug/L	10	99	80	120	0.0	40	
Pentachlorophenol		79.6	ug/L	10	106	80	120	0.0	40	
Phenol		80.9	ug/L	10	108	80	120	0.0	40	
Surr: 2,4,6-Tribromophenol				10	119	80	120	0.0	40	
Surr: 2-Fluorobiphenyl				10	107	80	120	0.0	40	
Surr: 2-Fluorophenol				10	107	80	120	0.0	40	
Surr: Nitrobenzene-d5				10	116	80	120	0.0	40	
Surr: Phenol-d5				10	105	80	120	0.0	40	
Surr: Terphenyl-d14				10	103	80	120	0.0	40	
Lab ID: 11-Nov-24_CCV_25	21	Continuing Calibration Verification Standard								11/12/24 20:30
2,4,5-Trichlorophenol		2.82	mg/kg	0.33	113	80	120			
2,4,6-Trichlorophenol		2.88	mg/kg	0.33	115	80	120			
2,4-Dichlorophenol		2.77	mg/kg	0.33	111	80	120			
2,4-Dimethylphenol		2.49	mg/kg	0.33	100	80	120			
2,4-Dinitrophenol		2.09	mg/kg	0.33	84	80	120			
2-Chlorophenol		2.72	mg/kg	0.33	109	80	120			
2-Nitrophenol		2.97	mg/kg	0.33	119	80	120			
4,6-Dinitro-2-methylphenol		2.43	mg/kg	0.33	97	80	120			
4-Chloro-3-methylphenol		2.63	mg/kg	0.33	105	80	120			
4-Chlorophenol		2.94	mg/kg	0.33	118	80	120			
4-Nitrophenol		2.45	mg/kg	0.33	98	80	120			
m+p-Cresols		2.38	mg/kg	0.33	95	80	120			
o-Cresol		2.46	mg/kg	0.33	98	80	120			
Pentachlorophenol		2.65	mg/kg	0.33	106	80	120			
Phenol		2.69	mg/kg	0.33	108	80	120			
Surr: 2,4,6-Tribromophenol				0.33	119	80	120			
Surr: 2-Fluorobiphenyl				0.33	107	80	120			
Surr: 2-Fluorophenol				0.33	107	80	120			
Surr: Nitrobenzene-d5				0.33	116	80	120			
Surr: Phenol-d5				0.33	104	80	120			
Surr: Terphenyl-d14				0.33	103	80	120			

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8270E											
Analytical Run: B_R432409											
Lab ID: 13-Nov-24_CCV_2	21	Continuing Calibration Verification Standard									11/13/24 13:22
2,4,5-Trichlorophenol		69.0	ug/L	10	92	80	120	0.0		40	
2,4,6-Trichlorophenol		72.6	ug/L	10	97	80	120	0.0		40	
2,4-Dichlorophenol		73.3	ug/L	10	98	80	120	0.0		40	
2,4-Dimethylphenol		68.3	ug/L	10	91	80	120	0.0		40	
2,4-Dinitrophenol		69.8	ug/L	10	93	80	120	0.0		40	
2-Chlorophenol		71.2	ug/L	10	95	80	120	0.0		40	
2-Nitrophenol		68.9	ug/L	10	92	80	120	0.0		40	
4,6-Dinitro-2-methylphenol		72.4	ug/L	10	97	80	120	0.0		40	
4-Chloro-3-methylphenol		69.9	ug/L	10	93	80	120	0.0		40	
4-Chlorophenol		66.9	ug/L	10	89	80	120	0.0		40	
4-Nitrophenol		78.4	ug/L	10	104	80	120	0.0		40	
m+p-Cresols		75.0	ug/L	10	100	80	120	0.0		40	
o-Cresol		71.1	ug/L	10	95	80	120	0.0		40	
Pentachlorophenol		66.9	ug/L	10	89	80	120	0.0		40	
Phenol		71.3	ug/L	10	95	80	120	0.0		40	
Surr: 2,4,6-Tribromophenol				10	93	80	120	0.0		40	
Surr: 2-Fluorobiphenyl				10	97	80	120	0.0		40	
Surr: 2-Fluorophenol				10	97	80	120	0.0		40	
Surr: Nitrobenzene-d5				10	94	80	120	0.0		40	
Surr: Phenol-d5				10	97	80	120	0.0		40	
Surr: Terphenyl-d14				10	91	80	120	0.0		40	

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270E										
Analytical Run: B_R432472										
11/14/24 16:09										
Lab ID: 14-Nov-24_CCV_2	21	Continuing Calibration Verification Standard								
2,4,5-Trichlorophenol		2.51	mg/kg	0.33	100	80	120			
2,4,6-Trichlorophenol		2.59	mg/kg	0.33	104	80	120			
2,4-Dichlorophenol		2.52	mg/kg	0.33	101	80	120			
2,4-Dimethylphenol		2.60	mg/kg	0.33	104	80	120			
2,4-Dinitrophenol		2.20	mg/kg	0.33	88	80	120			
2-Chlorophenol		2.53	mg/kg	0.33	101	80	120			
2-Nitrophenol		2.30	mg/kg	0.33	92	80	120			
4,6-Dinitro-2-methylphenol		2.34	mg/kg	0.33	94	80	120			
4-Chloro-3-methylphenol		2.56	mg/kg	0.33	102	80	120			
4-Chlorophenol		2.62	mg/kg	0.33	105	80	120			
4-Nitrophenol		3.14	mg/kg	0.33	125	80	120			S
m+p-Cresols		2.61	mg/kg	0.33	104	80	120			
o-Cresol		2.75	mg/kg	0.33	110	80	120			
Pentachlorophenol		2.11	mg/kg	0.33	85	80	120			
Phenol		2.80	mg/kg	0.33	112	80	120			
Surr: 2,4,6-Tribromophenol				0.33	95	80	120			
Surr: 2-Fluorobiphenyl				0.33	99	80	120			
Surr: 2-Fluorophenol				0.33	115	80	120			
Surr: Nitrobenzene-d5				0.33	98	80	120			
Surr: Phenol-d5				0.33	116	80	120			
Surr: Terphenyl-d14				0.33	96	80	120			

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

S - Spike recovery outside of advisory limits

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24110085

Report Date: 11/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
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Method: SW8270E

Analytical Run: B_R432485

Lab ID:	14-Nov-24_CCV_24	18	Continuing Calibration Verification Standard								11/14/24 20:03
1-Methylnaphthalene	0.0664	mg/kg	0.0033	100	80	120					
2-Methylnaphthalene	0.0626	mg/kg	0.0033	94	80	120					
Acenaphthene	0.0651	mg/kg	0.0033	98	80	120					
Acenaphthylene	0.0614	mg/kg	0.0033	92	80	120					
Anthracene	0.0712	mg/kg	0.0033	107	80	120					
Benzo(a)anthracene	0.0598	mg/kg	0.0033	90	80	120					
Benzo(a)pyrene	0.0658	mg/kg	0.0033	99	80	120					
Benzo(b)fluoranthene	0.0607	mg/kg	0.0033	91	80	120					
Benzo(g,h,i)perylene	0.0659	mg/kg	0.0033	99	80	120					
Benzo(k)fluoranthene	0.0683	mg/kg	0.0033	102	80	120					
Chrysene	0.0659	mg/kg	0.0033	99	80	120					
Dibenzo(a,h)anthracene	0.0697	mg/kg	0.0033	105	80	120					
Fluoranthene	0.0697	mg/kg	0.0033	105	80	120					
Fluorene	0.0624	mg/kg	0.0033	94	80	120					
Indeno(1,2,3-cd)pyrene	0.0691	mg/kg	0.0033	104	80	120					
Naphthalene	0.0637	mg/kg	0.0033	95	80	120					
Phenanthrene	0.0669	mg/kg	0.0033	100	80	120					
Pyrene	0.0565	mg/kg	0.0033	85	80	120					

Lab ID:	14-Nov-24_CCV_24	18	Continuing Calibration Verification Standard								11/14/24 20:03
1-Methylnaphthalene	1.99	ug/L	0.10	100	80	120					
2-Methylnaphthalene	1.88	ug/L	0.10	94	80	120					
Acenaphthene	1.95	ug/L	0.10	98	80	120					
Acenaphthylene	1.84	ug/L	0.10	92	80	120					
Anthracene	2.14	ug/L	0.10	107	80	120					
Benzo(a)anthracene	1.79	ug/L	0.10	90	80	120					
Benzo(a)pyrene	1.97	ug/L	0.10	99	80	120					
Benzo(b)fluoranthene	1.82	ug/L	0.10	91	80	120					
Benzo(g,h,i)perylene	1.98	ug/L	0.10	99	80	120					
Benzo(k)fluoranthene	2.05	ug/L	0.10	102	80	120					
Chrysene	1.98	ug/L	0.10	99	80	120					
Dibenzo(a,h)anthracene	2.09	ug/L	0.10	105	80	120					
Fluoranthene	2.09	ug/L	0.10	105	80	120					
Fluorene	1.87	ug/L	0.10	94	80	120					
Indeno(1,2,3-cd)pyrene	2.07	ug/L	0.10	104	80	120					
Naphthalene	1.91	ug/L	0.10	95	80	120					
Phenanthrene	2.01	ug/L	0.10	100	80	120					
Pyrene	1.70	ug/L	0.10	85	80	120					

NOV 25 2024

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



Work Order Receipt Checklist

Big Sky Civil and Environmental

H24110085

Login completed by: Rebecca A. Tooke

Date Received: 11/5/2024

Reviewed by: wjohnson

Received by: RAT

Reviewed Date: 11/6/2024

Carrier name: Return-FedEx Ground

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	0.6°C On Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

NOV 25 2024

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 0.4°C and shipping container 2 was 0.6°C. RAT 11/5/24

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT 	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
Washington	C1039	
Casper, WY 	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
	Gillette, WY	US EPA Region VIII
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

NOV 25 2024



Trust our People. Trust our Data

Chain of Custody & Analytical Request Record

www.energylab.com

Account Information (Billing information)

Company/Name: **Big Sky Civil & Environmental, Inc.**
 Contact: **Paxton Ellis**
 Phone: **(406) 727-2185**
 Mailing Address: **1324 13th Ave SW**
 City, State, Zip: **Great Falls, MT 59405**
 Email: **pellis@bigskyce.com**
 Receive Invoice: Hard Copy Email Hard Copy Email
 Purchase Order: **24AE** Quote: **H17717** Bottle Order: **49764**

Report Information (if different than Account Information)

Company/Name: _____
 Contact: _____
 Phone: _____
 Mailing Address: _____
 City, State, Zip: _____
 Email: _____
 Receive Report: Hard Copy Email
 Special Report/Formats: _____
 LEVEL IV NELAC EDD/EDT (contact laboratory) Other _____

Comments

Project Information

Project Name, PWSID, Permit, etc: **24AE - Tim Birk Somers Ph II ESA**
 Sampler Name: **Paxton Ellis** Sampler Phone: **(406) 727-2185**
 Sample Origin: **Slate MT** EPA/State Compliance: Yes No
 URANIUM MINING CLIENTS MUST indicate sample type.
 NOT Source or Byproduct Material
 Source/Processed Ore (Ground or Refined) **CALL BEFORE SENDING
 11e.(2)Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

Matrix Codes

A - Air	W - Water	S - Soils/Solids	V - vegetation	B - Bioassay	O - Other	DW - Drinking Water
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Analysis Requested

8260 - VOCs	8270E SIM - PAHs	8270E - SVOCs Phenols
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All turnaround times are standard unless marked as RUSH.
 Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Received by (print)	Date/Time	Signature
	Date	Time					
1 TP-01 0-6"	10/31/24	10:05 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
2 TP-01 30-36"	10/31/24	10:10 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
3 TP-02 0-6"	10/31/24	10:20 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
4 TP-02 30-36"	10/31/24	10:25 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
5 TP-03 0-6"	10/31/24	10:30 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
6 TP-03 30-36"	10/31/24	10:35 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
7 TP-04 0-6"	10/31/24	10:40 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
8 TP-04 30-36"	10/31/24	10:45 am	4	S	Received by Laboratory (print)	11-24-24 08:42	Signature
9 TP-05 GW	10/31/24	11:25 am	5	W	Received by Laboratory (print)	11-24-24 08:42	Signature
10 TP-06 GW	10/31/24	12:00 pm	5	W	Received by Laboratory (print)	11-24-24 08:42	Signature

ELI LAB ID
 Laboratory Use Only
 42410085

LABORATORY USE ONLY

Shipped By: **[Signature]** Cooler ID(s): **[Signature]** Custody Seals: **[Signature]** Receipt Temp: **10.7C** Receipt Date/Time: **11-24-24 16:00** Receipt Signature: **[Signature]**

Payment Type: Cash Check Amount: \$ _____

Received by (print): **Received by Laboratory (print)** Date/Time: **11-24-24 08:42** Signature: **[Signature]**

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

NOV 25 2024



Chain of Custody & Analytical Request Record

www.energylab.com

Account Information (Billing information)

Company Name **Big Sky Civil & Environmental, Inc.**

Contact **Paxton Ellis**

Phone **(406) 727-2185**

Mailing Address **1324 13th Ave SW**

City, State, Zip **Great Falls, MT 59405**

Email **pellis@bigskyce.com**

Receive Invoice Hard Copy Email

Receive Report Hard Copy Email

Purchase Order **24AE** Quote **H17717** Bottle Order **49764**

Report Information (if different than Account Information)

Company Name _____

Contact _____

Phone _____

Mailing Address _____

City, State, Zip _____

Email _____

Receive Report Hard Copy Email

Special Report/Formats: LEVEL IV NELAC EDD/EDT (contact laboratory) Other _____

Comments

Project Information

Project Name, PWSID, Permit, etc. **24AE - Tim Birk Somers Ph II ESA**

Sampler Name **Paxton Ellis** Sampler Phone **(406) 727-2185**

Sample Origin State **MT** EPA/State Compliance Yes No

URANIUM MINING CLIENTS MUST indicate sample type.

NOT Source or Byproduct Material

Source/Processed Ore (Ground or Refined) **CALL BEFORE SENDING

11e.(2) Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

Matrix Codes

- A - Air
- W - Water
- S - Soils/Solids
- V - Vegetation
- B - Biocassay
- O - Other
- DW - Drinking Water

Analysis Requested

8260 - VOCs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8270E SIM - PAHs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8270E - SVOCs Phenols	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

All turnaround times are standard unless marked as RUSH.

Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification

(Name, Location, Interval, etc.)

Sample ID	Collection		Matrix (See Codes Above)	Number of Containers	Received by (print)	Date/Time	Signature
	Date	Time					
1 TP-07 GW	10/31/24	12:35 pm	W	5			
2 TP-08 GW	10/31/24	1:00 pm	W	5			
3							
4							
5							
6							
7							
8							
9							
10							

RUSH TAT

ELI LAB ID
Laboratory Use Only
124110085

See Attached

Custody Record MUST be signed **Paxton Ellis** Relinquished by (print) **Ellis**

Date/Time **11/4/24** 16:00

Signature **Paxton Ellis**

Shipped By **Tolliver** Cooler ID(s) **2** Custody Seals **Y N C B**

Receipt Temp **21.0** °C **620.0** °F

Temp Blank **Y** N **Y** N **Y** N

On Ice **Y** N **Y** N

Payment Type **CC** Cash **Check**

Amount \$ _____

Receipt Number (cash/check only) _____

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NOV 25 2024

