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2024 SOIL SAMPLING AND ANALYSIS REPORT SOLDOTNA REPEATER SITE

ADEC FILE NO. 2320.38.005

AT&T Alaska Sites

Prepared for:

AVANGRID RENEWABLES HOLDINGS, Inc.

January 2025

2024 SOIL SAMPLING AND ANALYSIS REPORT
SOLDOTNA REPEATER SITE

Prepared for:

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Date:
January 10, 2025

The work described herein was performed and this report prepared under the direct supervision of:

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SOLDOTNA REPEATER STATION SITE
(2011 Google Earth™ Image)

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ACRONYMS & ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
ALTA	Alta Geosciences, Inc.
BGS	below ground surface
DRO	Diesel-range organics
EPH	Extractable Petroleum Hydrocarbons
ISCO	In-Situ Chemical Oxidation
LCS	lab control sample
LNAPL	Light nonaqueous phase liquid
mg/kg	Milligrams per kilogram
MSL	mean sea level
MS/MSD	matrix spike/matrix spike duplicate
PAH	polycyclic aromatic hydrocarbons
PQL	practical quantitation limit
QA	quality assurance
QC	quality control
RPD	relative percent difference
VOC	volatile organic compounds
VPH	Volatile Petroleum Hydrocarbons

EXECUTIVE SUMMARY

This report documents soil sampling and analysis performed at the AT&T Soldotna Repeater Station Site in 2024. The work was performed by ALTA Geosciences, Inc. on behalf of Avangrid Renewables Holdings, Inc., which is performing investigation and remediation at this site pursuant to a stock purchase agreement.

The purpose of this work was to evaluate the possible presence of soils containing greater than 12,500 mg/kg Diesel-range organics (ADEC's Maximum Allowable Concentration for DRO) at depths less than 15 feet below ground surface (bgs). Confirmation sampling performed as a part of the soil remediation in 2007 suggested two possible locations where such soils remained (Sample 28, 13,500 mg/kg DRO at 10 feet bgs and Sample 14, 21,500 mg/kg DRO at 11 feet bgs}. ALTA maintained that the installation and operation of the BioVenting/Soil Vapor Extraction system for 14 years had resulted in significant in-situ bioremediation of these soils and the results of the 2007 confirmation sampling was not representative of current conditions.

To assess this, two geoprobe soil borings were advanced, one at each of the above two locations. Continuous soil samples were collected from 10 to 15 feet bgs and screened in the field for evidence of hydrocarbon contamination. Soils exhibiting the greatest such evidence were collected for laboratory analysis. Samples were analyzed for DRO, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and volatile and extractable petroleum hydrocarbons (VPH and EPH by Washington State methodology).

DRO concentrations ranged from 2,990 to 878 mg/kg DRO. No VOCs or PAHs were detected above ADEC's Human Health criteria. A few VOCs and PAHs were detected above ADEC'c Migration to Groundwater criteria, but these have not been detected in monitoring well MW-16 downgradient from the source areas.

Principle conclusions that can be drawn from this investigation include:

1. The Bioventing/Soil Vapor Extraction System (BV/SVE) was highly effective at bioremediation of hydrocarbon-related contaminants in subsurface soils.

2. No soils containing greater than ADEC's Maximum Allowable Concentration (MAC) for DRO remain at the site shallower than 15 feet bgs.

1.0 INTRODUCTION

This ***Soil Sampling and Analysis Repo**rt* summarizes soil sampling and analysis performed at the AT&T Soldotna Repeater Site in Octobern2024. The AT&T Soldotna Repeater Site is located at approximately Mile 3.5 of the Kenai Spur Highway, north of Soldotna, Alaska (Figure 1) corresponding to 60º 31' 54' north latitude and 151º 05' 00" west longitude at an elevation of 167 feet.

This document has been prepared by ALTA Geosciences, Inc. (ALTA), for Avangrid Renewables Holdings, Inc., which is conducting investigations and remediation at this site pursuant to a stock purchase agreement.

1.1 BACKGROUND

Underground fuel lines formerly connected a 10,000-gallon diesel aboveground storage tank (AST) installed in the mid-1960s with smaller tanks located at the Dormitory, Equipment Building, and Auto Maintenance Shop (Figure 2). The fuel lines were traced during the ***Phase 2 Site Investigation, Soldotna Microwave Repeater Site, Soldotna, Alaska*** (Woodward-Clyde Consultants, January 13, 1998), and several test pits were excavated at pipeline joints and elbows. The lines were found to be in generally good condition except in the area between the Dormitory and Equipment Buildings where the lines had been placed in a corrugated metal culvert apparently to protect them from being crushed by vehicular traffic. Unfortunately, the culverts held water which in turn corroded the fuel lines and resulted in fuel leakage. The results of the 1995 Phase 2 investigation identified soil contamination to a depth of approximately 30 feet below ground surface (bgs) on the northwest side of the Dormitory.

Several investigations were subsequently conducted to further assess the extent of soil and groundwater contamination. The ***2006 Groundwater Summary Report, Soldotna Repeater Site*** (ALTA, January 2007) summarizes the activities and findings from these previous investigations. Diesel-range organics (DRO) is the principal contaminant in both soil and groundwater with little to no gasoline-range organics (GRO) or benzene, toluene, ethylbenzene, and xylenes (BTEX) present.

A soil remediation was performed at the site in September 2007 (***Construction Completion Report - 2007 Interim Soil Remediation, Soldotna Repeater Site***, ALTA, April 2008). The work involved excavating soils impacted by diesel fuel to the extent practicable along the old fuel line alignments. The lines were found to be in generally good condition except in the area between the Dormitory and Equipment Building, where DRO impacts were identified to a depth of approximately 30 feet below ground surface. The removed pipelines were drained of residual product, cleaned using high pressure hot water, and disposed of as scrap metal for recycling.

Excavations were backfilled using clean, imported sand and gravel, to match pre-existing grade. The principal findings from this cleanup action were:

- Excavation of contaminated soil, to a depth of approximately 10 feet below ground, and removal of the old fuel piping in the area between the dormitory and equipment building ASTs was generally successful. No groundwater was encountered in the excavation.

- Soil containing DRO concentrations above 250 mg/kg remains at depths below approximately 10 feet in the area below the northern fuel pipeline, and in excavation sidewalls directly below both the Dormitory Building and the Equipment Building, and the AST location. Further excavation in these areas was not possible due to the concern of undermining the building foundations. Contaminated soil above 250 mg/kg DRO also remains in the northern excavation sidewall due to the close proximity of several live power lines, which prevented further excavation.

- A total of 833.8 tons of DRO-contaminated soil was transported to ASR's Anchorage thermal desorption facility for treatment.

A bioventing/soil vapor extraction (SVE) system was installed in late 2007/early 2008 and has been in operation during nonfreezing periods to remediate hydrocarbon impacted soils in the vadose zone through 2021 (ALTA, 2007b).

1.2 PURPOSE AND SCOPE

Confirmation sampling performed as a part of the 2007 soil remediation documented two locations where soils containing greater than 12,500 mg/kg DRO remained at less than 15 feet bgs. This was discussed in ADEC's letter dated January 17, 2024 (***2023 Groundwater Monitoring Report Soldotna Repeater Site***) which noted that these values exceed ADEC's Maximum Allowable Concentration for DRO. The two locations were identified as Sample 28, 13,500 mg/kg DRO at 10 feet below ground surface (bgs); and Sample 14, 21,500 mg/kg DRO at 11 feet bgs (Figure 3). As noted in our letter dated February 21, 2024:

> *"It is relevant to this discussion that we installed a BioVenting/Soil Vapor Extraction system (BV/SVE) at the site in 2008 which was operated from 2008 through 2021 (fourteen years). The BV/SVE system was located in close proximity to the sample locations discussed above. In addition to providing abundant oxygen to enhance in-situ bioremediation, the system was very effective at stripping the aromatic fraction from the residual hydrocarbons as has been documented in past groundwater monitoring reports. It is therefore unreasonable to assume that the sample results from 2007 reflect current contaminant concentrations in this area."*

We then proposed to advance two soil borings, one each at the locations of prior samples 14 and 28. Soil samples were to be collected continuously at each location from 10 to 15 feet

bgs. The soil cores were to be screened in the field for evidence of hydrocarbon impacts (staining, odor, sheen, PID reading). One sample from each boring would then be selected for laboratory analysis from the soil having the greatest evidence of hydrocarbon impacts. These soil samples were to be analyzed as follows:

- DRO by method AK102
- Volatile Organic Compounds by EPA method 8260D
- Polycyclic Aromatic Hydrocarbons by EPA method 8270D SIM
- Volatile and extractable petroleum hydrocarbons (VPH and EPH) by Washington State Department of Ecology methods

This report documents the results of this sampling and analysis.

Sampling and analysis activities are performed in accordance with ***Field Sampling/Quality Assurance Project Plan*** (ALTA, 2021, hereafter referred to as the FS/QAPP) and ADEC's ***Field Sampling Guidance*** (January 2022). Sampling was performed by a "Qualified Person" as required by 18 AAC 75.

2.0 2024 SOIL SAMPLING

Soil borings were performed on October 22, 2024, using a continuous coring geoprobe drill rig provided by Geotek Alaska, Inc. (Figure 4).

Soil samples were identified as “14-2024” corresponding to the location of 2007 Sample 14 and “28-2024” corresponding to the location of 2007 Sample 28. Sample “Duplicate” was a field duplicate of sample “14-2024.” Photographs of the soil cores are shown on Figures 5 and 6. Boring 14-2024 was moved 3 feet northeast of original planned location due to underground electric utilities which had been installed in 2017. Field notes are presented in Appendix A.

Soil was screened in the field for evidence of hydrocarbon contamination (odor, staining and portable photoionization detector (PID) reading). Results of the field screening are shown on Table 1. Soil exhibiting the greatest degree of impact were selected for laboratory analysis:

- Sample 14-2024 and Duplicate: Boring 14, 12 to 13 feet bgs. Silty sand with some odor, PID reading 325ppm.
- Sample 28-2024: Boring 28, 12 to 13 feet bgs. Silty sand with some hydrocarbon odor, PID reading 425ppm.

Soil not used for sampling was returned to the bore hole. Local sand and gravel was used to complete backfilling the borehole. Plastic geoprobe liners were disposed of as solid waste.

3.0 2024 SOIL ANALYSIS AND RESULTS

3.1 SOIL ANALYSES

Soil samples were analyzed for:

- DRO by method AK102
- Volatile Organic Compounds by EPA method 8260D
- Polycyclic Aromatic Hydrocarbons by EPA method 8270D SIM
- Volatile and extractable petroleum hydrocarbons (VPH and EPH) by Washington State Department of Ecology methods

Laboratory analyses were performed by SGS Environmental Services (SGS) in Anchorage, Alaska. Laboratory analysis certificates are presented in Appendix C.

3.1.1 Quality Assurance Summary

Appendix B contains the quality assurance summary report and the completed ADEC Laboratory Data Review Checklists.

The Quality Assurance review included, where appropriate, evaluation of holding times, blanks, matrix spike (MS) and laboratory control sample (LCS) recoveries, duplicate sample relative percent differences (RPDs), reporting limits, and overall assessment of data in the sample

No significant QA anomalies were noted. All data are considered valid and usable for the intended purpose.

3.2 SOIL DATA RESULTS

Soil analysis results are summarized on Table 2 and Table 3.

3.2.1 DRO

Sample 14-2024 contained 2,990 mg/kg DRO, while 2007 Sample 14 contained 21,500 mg/kg DRO. Sample 28-2024 contained 878 mg/kg DRO while 2007 Sample 28 contained 13,500 mg/kg DRO.

3.2.2 VOCs

As shown on Table 2, several VOCs were found to exceed ADEC's Migration to Groundwater criteria: 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; Ethylbenzene; Naphthalene and total Xylenes. None however exceeded ADEC's Human Health criteria. Notably, in 2017 when groundwater samples were analyzed for VOCs, only Naphthalene (a major constituent of DRO) exceeded ADEC's cleanup level for groundwater and only in wells MW-6 and MW-

11 which both had significantly high levels of DRO and were not detected in downgradient well MW-16.

3.2.3 PAHs

As shown on Table 2, several PAHs were found to exceed ADEC's Migration to Groundwater criteria: 1-Methylnaphthalene; 2-Methylnaphthalene and Naphthalene. Again, none exceeded ADEC's Human Health criteria. In 2017 when groundwater samples were also analyzed for PAHs, all three compounds exceeded ADEC's cleanup level for groundwater in well MW-11 which had significantly high levels of DRO but were not detected in downgradient well MW-16.

3.2.4 VPH and EPH

The analyses for VPH and EPH were performed in the event that an evaluation using ADEC's Method 3 approach to site specific cleanup levels was appropriate. Since the DRO analyses discussed in Section 3.2.1 were far below ADEC's Maximum Allowable Concentration, further evaluation of the VPH and EPH analyses is unnecessary and was not undertaken.

4.0 CONCLUSIONS

Principle conclusions that can be drawn from this investigation include:

3. The BV/SVE system was highly effective at bioremediation of hydrocarbon-related contaminants in subsurface soils.

4. No soils containing greater than ADEC's Maximum Allowable Concentration (MAC) for DRO remain at the site shallower than 15 feet bgs.

5. No soils containing VOCs or PAHs above ADEC's Human Health criteria remain at the site shallower than 15 feet bgs.

6. A few VOCs and PAHs are present in subsurface soils exceeding ADEC's Migration to Groundwater criteria. However, these compounds have not been detected in downgradient monitoring wells near the property boundary.

5.0 RECOMMENDATIONS

Based on the data collected to date, we make the following recommendations:

- Per discussions with ADEC, obtain a groundwater sample from the onsite domestic well and monitoring wells MW-6 and MW-11 and analyze for DRO, PAHs and VOCs.
- Perform the Cumulative Risk Calculator for the site.
- Submit a Well Decommissioning Plan for the remaining monitoring wells at the site.
- Prepare the draft Environmental Covenant for the site.

6.0 REFERENCES

ADEC, 2022, *Field Sampling Guidance*, January 2022

ADEC, 2024, *2023 Groundwater Monitoring Report Soldotna Repeater Site.* January 17, 2024

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New Horizons Telecom, Inc., 1991, *Closure Assessment for UST Removed at Soldotna, Tank Removal Date: July 1990*, prepared for ALASCOM, 1991.

Woodward-Clyde, 1998, *Phase II Site Investigation, Soldotna Microwave Repeater Site, Soldotna, Alaska*, prepared for AT&T/Alascom, January 12, 1998.

TABLES

Table 1 – Field Screening Results

Boring	Depth, ft bgs	PID reading, ppm	Odor	Staining/Sheen
14-2024	10-11	68	None	None
	11-13	325	Some odor	Sheen on clay layer
	13-15	10	None	None
28-2024	10-11	125	None	None
	11-13	425	Some odor	Sheen on clay layer
	13-15	10	None	None

Table 2- Summary Soil Analysis Results (mg/Kg)

Analyte	ADEC Human Health Cleanup Level (mg/Kg)	ADEC Migration to Groundwater Cleanup Level (mg/Kg)	SAMPLE ID		
			14-2024	28-2024	Duplicate
Diesel Range Organics	10250	250	**2990**	**878**	**2700**
VOLATILE ORGANIC COMPOUNDS					
1,2,4-Trimethylbenzene	280	0.61	**16.4**	**9.84**	**14.7**
1,3,5-Trimethylbenzene	250	0.66	**3.64**	**2.66**	**3.31**
4-Isopropyltoluene	none	none	5.46	3.61	4.78
Ethylbenzene	49	0.13	**0.451**	**0.277**	**0.438**
Isopropylbenzene (Cumene)	1700	5.6	1.48	1	1.33
Naphthalene	29	0.038	**15.1**	**5.09**	**13.9**
n-Butylbenzene	5000	23	4.34	2.78	3.51
n-Propylbenzene	3700	9.1	2.82	2.43	2.52
sec-Butylbenzene	10000	42	2.14	2.32	2.49
o-Xylene	none	none	0.825	<0.184	2.01
P & M -Xylene	none	none	2.89	<0.368	0.783
Xylenes (total)	490	1.5	**2.96**	<0.552	**2.79**
POLYNUCLEAR AROMATIC HYDROCARBONS					
1-Methylnaphthalene	230	0.41	**10.4**	1.69	**10.3**
2-Methylnaphthalene	310	1.3	**13**	1.9	**14**
Acenaphthene	4600	37	0.163	0.0673	0.147
Acenaphthylene	2300	18	0.253	0.0599	0.241
Anthracene	23000	390	0.0438	0.0386	0.042
Fluorene	3100	36	0.544	0.345	0.408
Naphthalene	29	0.038	**5.63**	0.62	**8.09**
Phenanthrene	2300	39	0.438	0.457	0.353

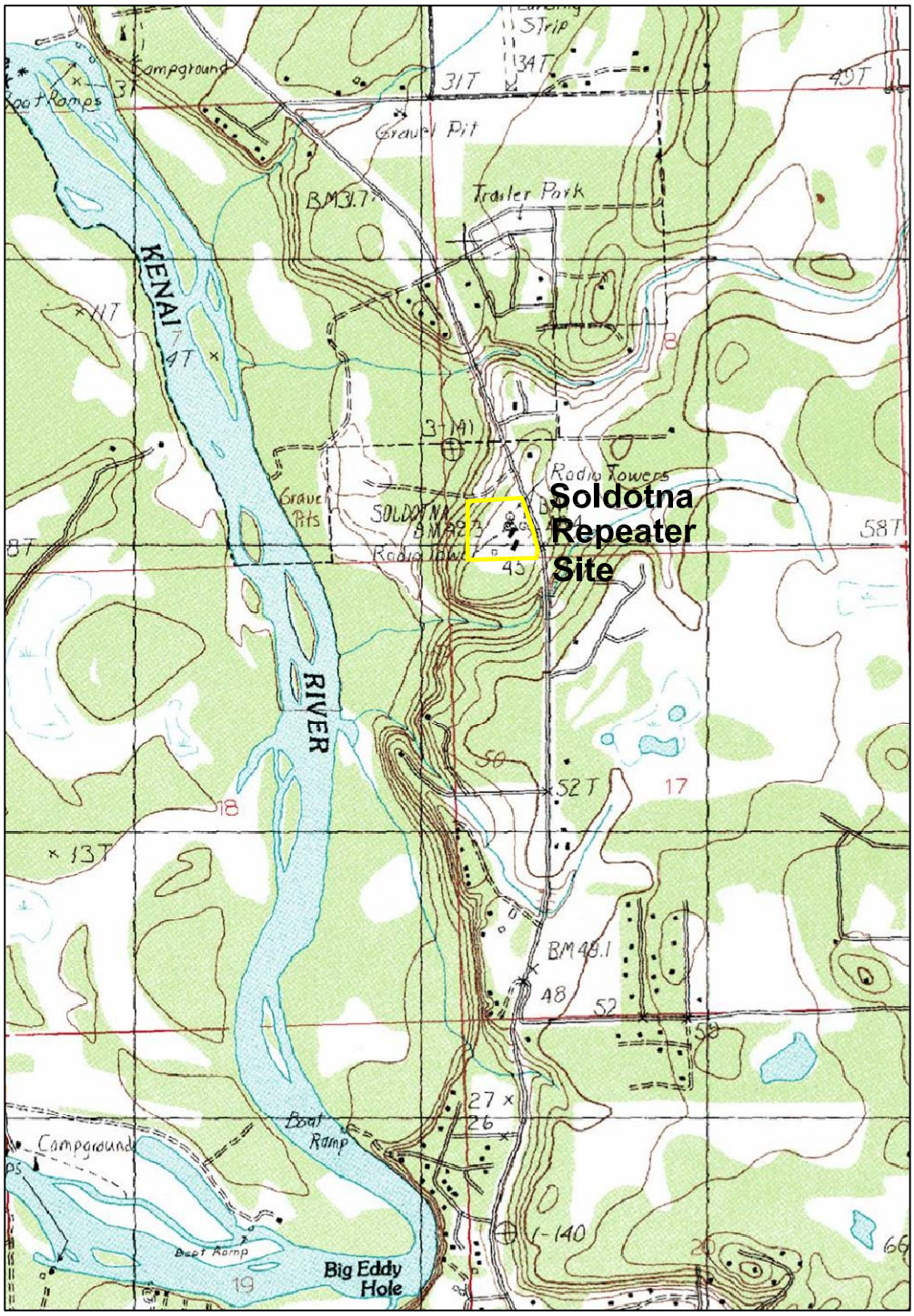
Notes:
1. Sample "Duplicate" = Field duplicate of sample 14-2024
2. <##.# = analyte not reported at detection limit shown
3. **###.##** Reported concentration exceeds ADEC Migration to Groundwater criteria
4. **###.##** Reported concentration exceeds ADEC Human Health criteria
5. Only analytes which had a detectable result in at least one sample are shown

Table 3 - Extractable/Volatile Petroleum Hydrocarbons by Washington State Method (mg/Kg)

		SAMPLE ID		
Analyte		14-2024	28-2024	Duplicate
Diesel Range Organics	By ADEC method AK-102>	**2990**	**878**	**2700**
EXTRACTABLE PETROLEUM HYDROCARBONS (EPH)				
C8-C10 Aliphatics		109	91.8	108
>C10-C12 Aliphatics		864	295	792
>C12-C16 Aliphatics		1910	892	1800
>C16-C21 Aliphatics		447	583	455
>C21-C34 Aliphatics		27.6	36.7	29.2
C8-C10 Aromatics		12.6	9.01	11.5
>C10-C12 Aromatics		74.4	24.4	65.8
>C12-C16 Aromatics		278	105	246
>C16-C21 Aromatics		178	169	167
>C21-C34 Aromatics		6.99	36.7	7.16
VOLATILE PETROLEUM HYDROCARBONS (VPH)				
C5-C6 Aliphatics		<34.4	<34.3	<32.4
>C6-C8 Aliphatics		<34.4	<34.3	<32.4
>C8-C10 Aliphatics		<34.4	<34.3	<32.4
>C10-C12 Aliphatics		450	220	278
C8-C10 Aromatics		260	103	142
>C10-C12 Aromatics		561	131	308
>C12-C13 Aromatics		463	95.5	267

Notes:
1. Sample "Duplicate" = Field duplicate of sample 14-2024
2. <##.# = analyte not reported at detection limit shown

FIGURES

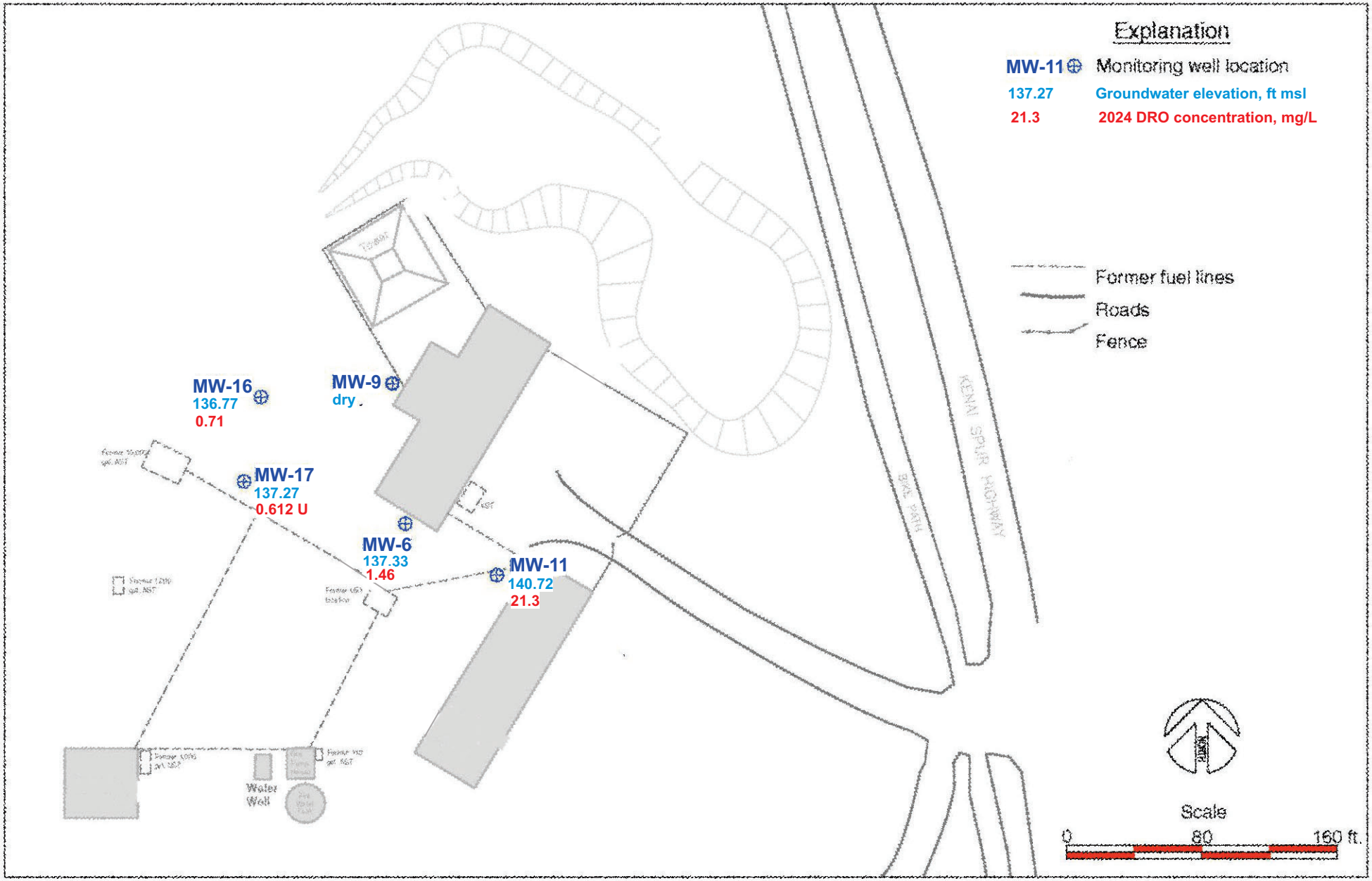


Base map: Kenai (C3) SW (1986)

Scale

0 2000 4000 feet

ALTA GEOSCIENCES, INC. *Environmental & Geotechnical Solutions* Bothell, Washington *Prepared for: ScottishPower Holdings, Inc.*	**Soldotna Repeater Site** **Site Location Map**	FIGURE **1**



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SOLDOTNA REPEATER STATION
SITE PLAN

2024 SOIL SAMPLING AND ANALYSIS REPORT

FIGURE
2

EQUIPMENT BUILDING

EXISTING AST

MW-6

APPROXIMATE FINAL LIMITS OF EXCAVATION

2-INCH STEEL FUEL LINE INSIDE OF 8-INCH CORRUGATED STEEL PIPE

APPROXIMATE LOCATION OF FORMER UST

ACTIVE POWER LINES

NEW POWER LINES INSTALLED ca 2017

BORING 14-2024

BORING 28-2024

MW-1

MW-11

ABANDONED POWER LINES (5) REMOVED IN EXCAVATION

OLD DORMITORY BUILDING

??

20 5,140
12 >4,000
15 ND
19 3,430
10
13 4,530
16
11
8
ND
31
14 21,500
7 4,870
ND
17
9
35 43.9
28 13,500
6 2,010
18 571
29
21
23
27
32 ND
ND
36 ND
30.3
24
69.0
22
25 323
5
4
2
37 ND
34 ND
ND
26
1
3 ND
ND
33
30
ND 38

EXPLANATION

- Existing Monitoring Well
- 1 — Soil Sampling Location
- 1 — Soil Sampling Location – grayed out indicates sample later excavated
- 1 — Soil Sampling Location – red indicates lab result exceeds 250 mg/kg DRO. DRO result in mg/kg. (3,150)
- 2024 BORING LOCATION

NORTH

Scale
0 10 20

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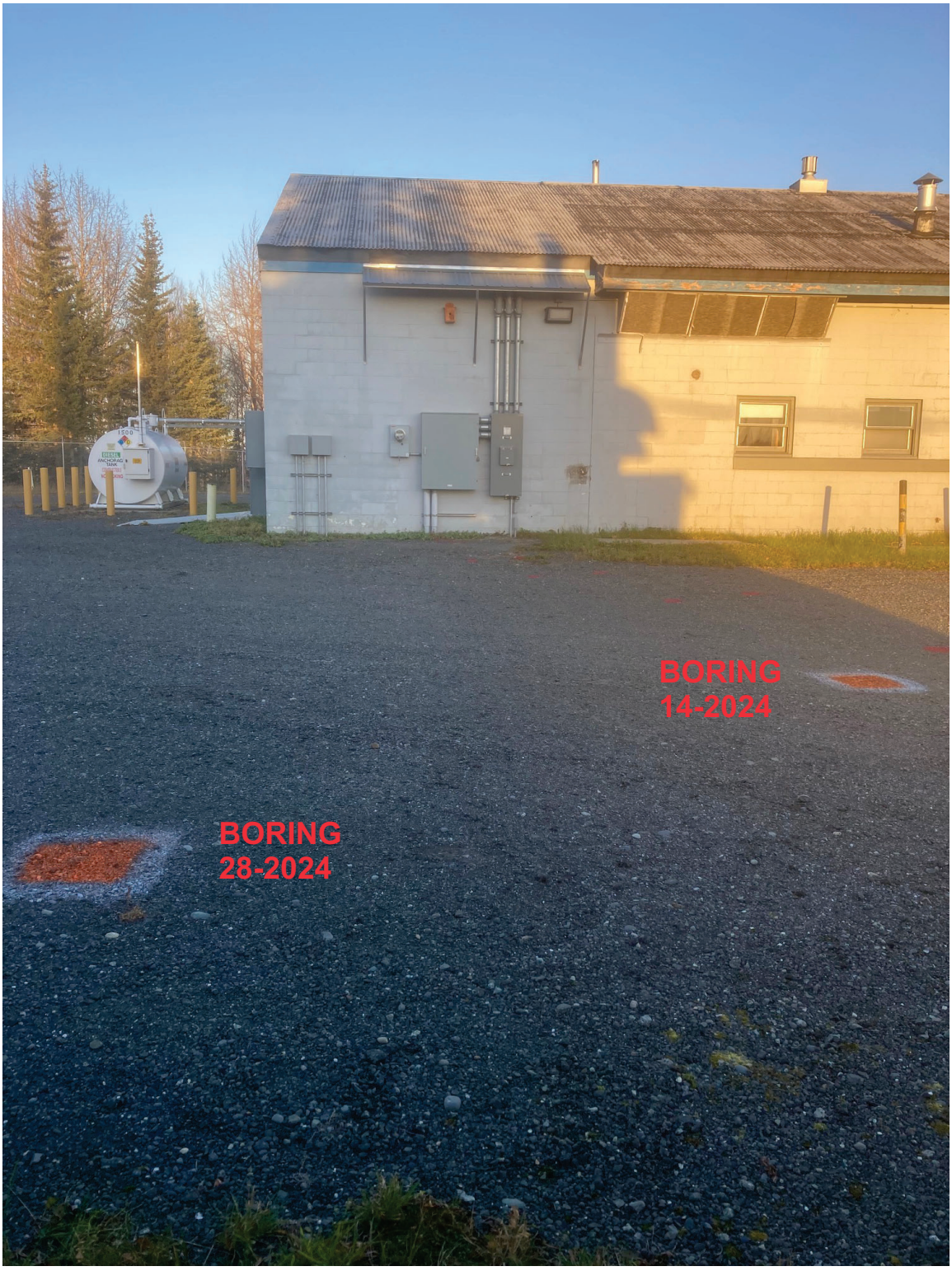
SOLDOTNA REPEATER STATION SITE

2024 SOIL BORINGS AND 2007 CONFIRMATION SAMPING RESULTS

FIGURE 3



LOOKING NORTHWEST TOWARDS EQUIPMENT BUILDING

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2024 SOIL SAMPLING AND ANALYSIS REPORT
SOLDOTNA REPEATER STATION SITE

2024 SOIL BORING LOCATIONS

FIGURE
4

DEPTH BGS

- 10.0

- 12.5

- 12.5

- 15

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SOLDOTNA REPEATER STATION SITE

BORING 14-2024

FIGURE
5

DEPTH BGS

- 10.0

- 12.5

- 12.5

- 15

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SOLDOTNA REPEATER STATION SITE

BORING 28-2024

FIGURE
6

APPENDIX A

FIELD NOTES

10/17/23 Cont.

1150 Sampled MW-16
1245 Sampled MW-17
1330 Sampled MW-06
1345 Collected Equipment Blank EB-1
1440 Sampled MW-11

1530 Completed Clean up & Decon & departed site

There was insificient water to sample wells MW-9, MW-10, MW-12 & MW-15

10/22/24

0830 Arrived on site for Planned Drilling & well decommissioning
Checked in w/ AT&T Phill by Phone
locates have been completed
Spoke w AT&T on site Rep Proposed locations are good to proceed

1100 Boring 28-2024
10-11' Soil w sand PID = 125
11-12' Sand & clay with some odor + water
13-15 Sand PID = 10
1115 Collected Sample 28-2024 From 12'
PID = 425 PPm

1200 Boring 14-2024
moved ~3' NE from Proposed location due to utilities
10-11' Soil w/Sand PID = 69
11-13' Silty Sand w/ some odor - water Clay @ 13' 13-15' Sand PID = 10
1215 collected Samples 14-2024 & Duplicate
PID = 325 PPm @ 12-13' Sample

10/22/24

1300 Began well Decommissioning

MW-7 - As Per work Plan
MW-2 As Per workPlan
MW-5 Casing broke off below Ground
Only 10' came up
1630 Began Clean up

1645 off site for the day

10/23/24

0745 Arrive on site - Safety brief
& begin Decommissioning wells

0900 Set up to begin ground water sampling
while GeoTech continues well Abandonment

MW-14 As Per work Plan
MW-8 As Per workPlan
MW-15 As Per workPlan
MW-10 As Per workPlan
MW-12 As Per workPlan

10/23/24 cont

MW-13 As Per workPlan
MW-3R As Per workPlan

1600 well PiPe & monuments Taken
To Landfill for disposal,
verified w/ AT&T Rep all locations
Properly backfilled to grade

1730 off site

APPENDIX B

DATA QUALITY REVIEW REPORTS & ADEC LABORATORY DATA REVIEW

2024 Soil Sampling and Analysis, Soldotna Repeater Station Site

Quality Control Summary

This QA summary includes a review, where appropriate, of holding times, blanks, matrix spike (MS) and laboratory control sample (LCS) recoveries, duplicate sample relative percent differences (RPDs), reporting limits, and overall assessment of data in the sample event. Each analysis that was performed is evaluated in the following subsections.

Field samples were reviewed to determine overall precision of sampling and analysis as well as matrix homogeneity for DRO.

Laboratory data were evaluated using laboratory-supplied control criteria. In the following method-specific discussions, only the criteria exceedances that impact data qualification or require assessment beyond laboratory documentation are discussed.

Samples were collected on October 22, 2024. Samples were shipped to SGS Environmental Services (SGS) in Anchorage, Alaska, and arrived under intact custody seals at the Anchorage laboratory in one laboratory batch on October 25, 2024. Three (3) soil samples, including one (1) field duplicate sample were submitted.

Sample Duplicate was collected as a field duplicate of sample 14-2024.

The sample results are reported under SGS job number 1246232, and all samples were received at the laboratory properly preserved with temperatures (0-6°C) and in good condition.

All data elements/indicators are in conformance with the project criteria, with the following exceptions:

DRO BY AK102

DRO is detect in the MB greater than one-half of the LOQ but less than the LOQ

VOCs BY EPA method 8260D

Surrogate recovery for 4-bromofluorobenzene (215%) does not meet QC criteria (55%-151%). due to matrix interference.

PAH BY EPA method 8270D

PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

PAH recovery for several analytes do not meet QC criteria in both MS and MSD samples.

OVERALL ASSESSMENT

The following summary highlights the data evaluation findings for this sampling event:

- No data are rejected.
- The completeness objectives (greater than 85 percent complete) for this project are met.

- The precision and accuracy of the laboratory data, as measured by laboratory quality control indicators, suggest that the data are useable as qualified for the purposes of this project.
- The precision measurements for result comparisons between primary and duplicate field samples are acceptable for the purpose of this project.

FIELD DUPLICATE RESULTS

Analyte	Method	Units	14-2024 1246232001 Sample	Duplicate 1246232003 Duplicate	RPD <=50	Qual
Diesel Range Organics	AK102	mg/kg	2990	2700	10.2	
Naphthalene	8270E SIM	mg/kg	5.63	8.09	35.9	
1,2,4-Trimethylbenzene	SW8260D	mg/kg	16.4	14.7	10.9	

ADEC Contaminated Sites Program Laboratory Data Review Checklist

Completed By:	ALEX TULA	**CS Site Name:**	AT&T SOLDOTNA REPEATER STATION	**Lab Name:**	SGS ENVIRONMENTAL SERVICES
Title:		**ADEC File No.:**	2320.38.005	**Lab Report No.:**	1246232
Consulting Firm:	ALTA GEOSCIENCES, INC.	**Hazard ID No.:**	2946	**Lab Report Date:**	Dec. 16, 2024

Note: *Any N/A or No box checked must have an explanation in the comments box.*

1. **Laboratory**

   a. Did an ADEC Contaminated Sites Laboratory Approval Program (CS-LAP) approved laboratory receive and perform all of the submitted sample analyses?
   Yes ☒ No ☐ N/A ☐
   Comments: Click or tap here to enter text.

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses CS-LAP approved?
   Yes ☐ No ☐ N/A ☒
   Comments: Click or tap here to enter text.

2. **Chain of Custody (CoC)**

   a. Is the CoC information completed, signed, and dated (including released/received by)?
   Yes ☒ No ☐ N/A ☐
   Comments: Click or tap here to enter text.

   b. Were the correct analyses requested?
   Yes ☒ No ☐ N/A ☐
   Analyses requested: Click or tap here to enter text.
   Comments: Click or tap here to enter text.

3. Laboratory Sample Receipt Documentation

a. Is the sample/cooler temperature documented and within range at receipt (0° to 6° C)?
Yes ☒ No ☐ N/A ☐
Cooler temperature(s): Click or tap here to enter text.
Sample temperature(s): Click or tap here to enter text.
Comments: Click or tap here to enter text.

b. Is the sample preservation acceptable – acidified waters, methanol preserved soil (GRO, BTEX, VOCs, etc.)?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

c. Is the sample condition documented – broken, leaking, zero headspace (VOA vials); canister vacuum/pressure checked and no open valves, etc.?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, canister not holding a vacuum, etc.?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

e. Is the data quality or usability affected?
Yes ☐ No ☒ N/A ☐
Comments: Click or tap here to enter text.

4. Case Narrative

a. Is the case narrative present and understandable?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

b. Are there discrepancies, errors, or QC failures identified by the lab?
Yes ☐ No ☒ N/A ☐
Comments:

Were all the corrective actions documented?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

c. What is the effect on data quality/usability according to the case narrative?
Comments: NONE

5. Sample Results

a. Are the correct analyses performed/reported as requested on CoC?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

b. Are all applicable holding times met?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

c. Are all soils reported on a dry weight basis?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

d. Are the reported limits of quantitation (LoQ) or limits of detections (LOD), or reporting limits (RL) less than the Cleanup Level or the action level for the project?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

e. Is the data quality or usability affected?
Yes ☐ No ☒ N/A ☐
Comments: Click or tap here to enter text.

6. QC Samples

a. Method Blank

i. Was one method blank reported per matrix, analysis, and 20 samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Are all method blank results less than LOQ (or RL)?
Yes ☒ No ☐
Comments: Click or tap here to enter text.

iii. If above LoQ or RL, what samples are affected?
Comments: Click or tap here to enter text.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

v. Data quality or usability affected?
Yes ☐ No ☒ N/A ☐

Comments: Click or tap here to enter text.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – Are one LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Metals/Inorganics – Are one LCS and one sample duplicate reported per matrix, analysis and 20 samples?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

iii. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)
Yes ☐ No ☒ N/A ☐
Comments: PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

iv. Precision – Are all relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? Was the RPD reported from LCS/LCSD, and or sample/sample duplicate? (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

v. If %R or RPD is outside of acceptable limits, what samples are affected?
Comments: Click or tap here to enter text.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

vii. Is the data quality or usability affected?
Yes ☐ No ☒ N/A ☐
Comments: Click or tap here to enter text.

c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

i. Organics – Are one MS/MSD reported per matrix, analysis and 20 samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Metals/Inorganics – Are one MS/MSD reported per matrix, analysis and 20 samples?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

iii. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?
Yes ☐ No ☒ N/A ☐
Comments: PAH MS/MSD recovery for several analytes do not meet QC criteria.

iv. Precision – Are all relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate.
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

v. If %R or RPD is outside of acceptable limits, what samples are affected?
Comments: Click or tap here to enter text.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

vii. Is the data quality or usability affected?
Yes ☐ No ☒ N/A ☐
Comments: Click or tap here to enter text.

d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

i. Are surrogate/IDA recoveries reported for organic analyses – field, QC, and laboratory samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R for field samples and 60-120 %R for QC samples; all other analyses see the laboratory report pages)
Yes ☐ No ☒ N/A ☐
Comments: Surrogate recovery for 4-bromofluorobenzene does not meet QC criteria due to matrix interference.

iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☒ N/A ☐
Comments: Click or tap here to enter text.

iv. Is the data quality or usability affected?
Yes ☐ No ☒ N/A ☐
Comments: Click or tap here to enter text.

e. Trip Blanks

i. Is one trip blank reported per matrix, analysis, and for each cooler containing volatile samples? Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Are all results less than LoQ or RL?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iii. If above LoQ or RL, what samples are affected?
Comments: Click or tap here to enter text.

iv. Is the data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

f. Field Duplicate

i. Are one field duplicate submitted per matrix, analysis, and 10 project samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Was the duplicate submitted blind to lab?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iii. Precision – All relative percent differences (RPD) less than specified project objectives? (Recommended: 30% water or air, 50% soil)

$$RPD\ (\%) = \left| \frac{R_1 - R_2}{\left(\frac{R_1 + R_2}{2}\right)} \right| X\ 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

Is the data quality or usability affected? (Explain)

Yes ☒ No ☐ N/A ☐
Comments:

iv. Is the data quality or usability affected? (Explain)
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

g. Decontamination or Equipment Blanks

i. Were decontamination or equipment blanks collected?
Yes ☐ No ☒ N/A ☐
Comments: Click or tap here to enter text.

ii. Are all results less than LoQ or RL?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

iii. If above LoQ or RL, specify what samples are affected.
Comments: Click or tap here to enter text.

iv. Are data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Are they defined and appropriate?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

APPENDIX C
LABORATORY ANALYSIS CERTIFICATES

SGS Environmental Services Work Order 1246232

Laboratory Report of Analysis

To: ALTA Geosciences, Inc.
2020 Maltby Rd Ste 7 #197
Bothell, WA 98021

Report Number: **1246232**

Client Project: **Soldotna AT+T**

Dear Alex Tula,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **ALTA Geosciences, Inc.**
SGS Project: **1246232**
Project Name/Site: **Soldotna AT+T**
Project Contact: **Alex Tula**

Refer to sample receipt form for information on sample condition.

14-2024 (1246232001) PS

8260D - Surrogate recovery for 4-bromofluorobenzene does not meet QC criteria due to matrix interference.
8270E SIM - PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

28-2024 (1246232002) PS

8260D - Surrogate recovery for 4-bromofluorobenzene does not meet QC criteria due to matrix interference.
8270E SIM - PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

Duplicate (1246232003) PS

8260D - Surrogate recovery for 4-bromofluorobenzene does not meet QC criteria due to matrix interference.
8270E SIM - PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

MB for HBN 1902765 [XXX/50729] (1798670) MB

AK102 - DRO is detect in the MB greater than one-half of the LOQ but less than the LOQ. Associated DOD sample concentrations for DRO is five times greater than the contamination in the MB.

LCS for HBN 1902766 [XXX/50730 (1798674) LCS

8270E SIM - PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

1246232003MS (1798675) MS

8270E SIM - PAH MS recovery for several analytes do not meet QC criteria. Refer to the LCS for accuracy requirements.
8270E SIM - PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

1246232003MSD (1798676) MSD

8270E SIM - PAH MSD recovery for several analytes do not meet QC criteria. Refer to the LCS for accuracy requirements.
8270E SIM - PAH LCS recovery for Naphthalene and Acenaphthene do not meet QC criteria.

WA DOE - VPH & EPH were analyzed by ARI of Tukwila, WA.

Corrected Report - EPH/VPH results have been included.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

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Report of Manual Integrations

Laboratory ID	Client Sample ID	Analytical Batch	Analyte	Reason
8270E SIM (PAH)				
1246232001	14-2024	XMS14710	Anthracene	RP
1246232003	Duplicate	XMS14710	Anthracene	RP
1798675	1246232003MS	XMS14710	Anthracene	RP
1798676	1246232003MSD	XMS14710	Anthracene	RP
SW8260D				
1246221001	LABREFQC	VMS23930	n-Butylbenzene	SP
1246232001	14-2024	VMS23925	n-Butylbenzene	SP
1246232002	28-2024	VMS23925	n-Butylbenzene	SP
1246232003	Duplicate	VMS23925	n-Butylbenzene	SP

Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

Print Date: 12/12/2024 10:12:48AM

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270E, 8270E-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 3/4 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
TNTC	Too Numerous To Count
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
14-2024	1246232001	10/22/2024	10/25/2024	Soil/Solid (dry weight)
28-2024	1246232002	10/22/2024	10/25/2024	Soil/Solid (dry weight)
Duplicate	1246232003	10/22/2024	10/25/2024	Soil/Solid (dry weight)
Trip Blank	1246232004	10/22/2024	10/25/2024	Soil/Solid (dry weight)

Method	Method Description
8270E SIM (PAH)	8270 PAH SIM Semi-Volatiles GC/MS
AK102	Diesel Range Organics (S)
SM21 2540G	Percent Solids SM2540G
SW8260D	VOC 8260 (S) Field Extracted

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Detectable Results Summary

Client Sample ID: **14-2024**
Lab Sample ID: 1246232001

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	1-Methylnaphthalene	10400	ug/kg
	2-Methylnaphthalene	13000	ug/kg
	Acenaphthene	163	ug/kg
	Acenaphthylene	253	ug/kg
	Anthracene	43.8	ug/kg
	Fluorene	544	ug/kg
	Naphthalene	5630	ug/kg
	Phenanthrene	438	ug/kg
Semivolatile Organic Fuels	Diesel Range Organics	2990	mg/kg
Volatile GC/MS	1,2,4-Trimethylbenzene	16400	ug/kg
	1,3,5-Trimethylbenzene	3640	ug/kg
	4-Isopropyltoluene	5460	ug/kg
	Ethylbenzene	451	ug/kg
	Isopropylbenzene (Cumene)	1480	ug/kg
	Naphthalene	15100	ug/kg
	n-Butylbenzene	4340	ug/kg
	n-Propylbenzene	2820	ug/kg
	o-Xylene	2140	ug/kg
	P & M -Xylene	825	ug/kg
	sec-Butylbenzene	2890	ug/kg
	Xylenes (total)	2960	ug/kg

Client Sample ID: **28-2024**
Lab Sample ID: 1246232002

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	1-Methylnaphthalene	1690	ug/kg
	2-Methylnaphthalene	1900	ug/kg
	Acenaphthene	67.3	ug/kg
	Acenaphthylene	59.9	ug/kg
	Anthracene	38.6	ug/kg
	Fluorene	345	ug/kg
	Naphthalene	620	ug/kg
	Phenanthrene	457	ug/kg
Semivolatile Organic Fuels	Diesel Range Organics	878	mg/kg
Volatile GC/MS	1,2,4-Trimethylbenzene	9840	ug/kg
	1,3,5-Trimethylbenzene	2660	ug/kg
	4-Isopropyltoluene	3610	ug/kg
	Ethylbenzene	277	ug/kg
	Isopropylbenzene (Cumene)	1000	ug/kg
	Naphthalene	5090	ug/kg
	n-Butylbenzene	2780	ug/kg
	n-Propylbenzene	2430	ug/kg
	sec-Butylbenzene	2320	ug/kg

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Detectable Results Summary

Client Sample ID: **Duplicate**
Lab Sample ID: 1246232003

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	1-Methylnaphthalene	10300	ug/kg
	2-Methylnaphthalene	14000	ug/kg
	Acenaphthene	147	ug/kg
	Acenaphthylene	241	ug/kg
	Anthracene	42.0	ug/kg
	Fluorene	408	ug/kg
	Naphthalene	8090	ug/kg
	Phenanthrene	353	ug/kg
Semivolatile Organic Fuels	Diesel Range Organics	2700	mg/kg
Volatile GC/MS	1,2,4-Trimethylbenzene	14700	ug/kg
	1,3,5-Trimethylbenzene	3310	ug/kg
	4-Isopropyltoluene	4780	ug/kg
	Ethylbenzene	438	ug/kg
	Isopropylbenzene (Cumene)	1330	ug/kg
	Naphthalene	13900	ug/kg
	n-Butylbenzene	3510	ug/kg
	n-Propylbenzene	2520	ug/kg
	o-Xylene	2010	ug/kg
	P & M -Xylene	783	ug/kg
	sec-Butylbenzene	2490	ug/kg
	Xylenes (total)	2790	ug/kg

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Results of **14-2024**

Client Sample ID: **14-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232001
Lab Project ID: 1246232

Collection Date: 10/22/24 12:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):84.6
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	10400		588	147	ug/kg	20		11/18/24 00:15
2-Methylnaphthalene	13000		588	147	ug/kg	20		11/18/24 00:15
Acenaphthene	163		29.4	7.35	ug/kg	1		11/14/24 10:55
Acenaphthylene	253		29.4	7.35	ug/kg	1		11/14/24 10:55
Anthracene	43.8		29.4	7.35	ug/kg	1		11/14/24 10:55
Benzo(a)Anthracene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Benzo[a]pyrene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Benzo[b]Fluoranthene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Benzo[g,h,i]perylene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Benzo[k]fluoranthene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Chrysene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Dibenzo[a,h]anthracene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Fluoranthene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Fluorene	544		29.4	7.35	ug/kg	1		11/14/24 10:55
Indeno[1,2,3-c,d] pyrene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Naphthalene	5630		470	118	ug/kg	20		11/18/24 00:15
Phenanthrene	438		29.4	7.35	ug/kg	1		11/14/24 10:55
Pyrene	29.4	U	29.4	7.35	ug/kg	1		11/14/24 10:55
Surrogates								
2-Methylnaphthalene-d10 (surr)	67		63-126		%	1		11/14/24 10:55
Fluoranthene-d10 (surr)	115		54-143		%	1		11/14/24 10:55

Batch Information

Analytical Batch: XMS14717
Analytical Method: 8270E SIM (PAH)
Analyst: C.M
Analytical Date/Time: 11/18/24 00:15
Container ID: 1246232001-A

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.616 g
Prep Extract Vol: 5 mL

Analytical Batch: XMS14710
Analytical Method: 8270E SIM (PAH)
Analyst: HBL
Analytical Date/Time: 11/14/24 10:55
Container ID: 1246232001-A

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.616 g
Prep Extract Vol: 5 mL

Print Date: 12/12/2024 10:12:55AM

Results of **14-2024**

Client Sample ID: **14-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232001
Lab Project ID: 1246232

Collection Date: 10/22/24 12:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):84.6
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	2990		23.5	10.6	mg/kg	1		11/13/24 23:35
Surrogates								
5a Androstane (surr)	85.5		50-150		%	1		11/13/24 23:35

Batch Information

Analytical Batch: XFC17107
Analytical Method: AK102
Analyst: T.L
Analytical Date/Time: 11/13/24 23:35
Container ID: 1246232001-A

Prep Batch: XXX50729
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.616 g
Prep Extract Vol: 5 mL

Print Date: 12/12/2024 10:12:55AM

Results of **14-2024**

Client Sample ID: **14-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232001
Lab Project ID: 1246232

Collection Date: 10/22/24 12:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):84.6
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	193	U	193	59.8	ug/kg	5		10/30/24 21:50
1,1,1-Trichloroethane	241	U	241	75.3	ug/kg	5		10/30/24 21:50
1,1,2,2-Tetrachloroethane	19.3	U	19.3	5.98	ug/kg	5		10/30/24 21:50
1,1,2-Trichloroethane	9.65	U	9.65	4.82	ug/kg	5		10/30/24 21:50
1,1-Dichloroethane	241	U	241	75.3	ug/kg	5		10/30/24 21:50
1,1-Dichloroethene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
1,1-Dichloropropene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
1,2,3-Trichlorobenzene	965	U	965	289	ug/kg	5		10/30/24 21:50
1,2,3-Trichloropropane	19.3	U	19.3	5.98	ug/kg	5		10/30/24 21:50
1,2,4-Trichlorobenzene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
1,2,4-Trimethylbenzene	16400		965	289	ug/kg	5		10/30/24 21:50
1,2-Dibromo-3-chloropropane	965	U	965	299	ug/kg	5		10/30/24 21:50
1,2-Dibromoethane	14.5	U	14.5	7.24	ug/kg	5		10/30/24 21:50
1,2-Dichlorobenzene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
1,2-Dichloroethane	19.3	U	19.3	6.75	ug/kg	5		10/30/24 21:50
1,2-Dichloropropane	96.5	U	96.5	48.2	ug/kg	5		10/30/24 21:50
1,3,5-Trimethylbenzene	3640		241	75.3	ug/kg	5		10/30/24 21:50
1,3-Dichlorobenzene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
1,3-Dichloropropane	96.5	U	96.5	29.9	ug/kg	5		10/30/24 21:50
1,4-Dichlorobenzene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
2,2-Dichloropropane	241	U	241	75.3	ug/kg	5		10/30/24 21:50
2-Butanone (MEK)	2410	U	2410	753	ug/kg	5		10/30/24 21:50
2-Chlorotoluene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
2-Hexanone	1160	U	1160	579	ug/kg	5		10/30/24 21:50
4-Chlorotoluene	193	U	193	96.5	ug/kg	5		10/30/24 21:50
4-Isopropyltoluene	5460		772	386	ug/kg	5		10/30/24 21:50
4-Methyl-2-pentanone (MIBK)	2410	U	2410	753	ug/kg	5		10/30/24 21:50
Acetone	2410	U	2410	1060	ug/kg	5		10/30/24 21:50
Benzene	121	U	121	37.6	ug/kg	5		10/30/24 21:50
Bromobenzene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
Bromochloromethane	241	U	241	75.3	ug/kg	5		10/30/24 21:50
Bromodichloromethane	19.3	U	19.3	5.98	ug/kg	5		10/30/24 21:50
Bromoform	241	U	241	75.3	ug/kg	5		10/30/24 21:50
Bromomethane	193	U	193	77.2	ug/kg	5		10/30/24 21:50
Carbon disulfide	965	U	965	299	ug/kg	5		10/30/24 21:50
Carbon tetrachloride	121	U	121	37.6	ug/kg	5		10/30/24 21:50
Chlorobenzene	241	U	241	75.3	ug/kg	5		10/30/24 21:50

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Results of **14-2024**

Client Sample ID: **14-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232001
Lab Project ID: 1246232

Collection Date: 10/22/24 12:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):84.6
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroethane	1930	U	1930	598	ug/kg	5		10/30/24 21:50
Chloroform	57.9	U	57.9	28.9	ug/kg	5		10/30/24 21:50
Chloromethane	241	U	241	75.3	ug/kg	5		10/30/24 21:50
cis-1,2-Dichloroethene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
cis-1,3-Dichloropropene	121	U	121	37.6	ug/kg	5		10/30/24 21:50
Dibromochloromethane	48.2	U	48.2	14.5	ug/kg	5		10/30/24 21:50
Dibromomethane	241	U	241	75.3	ug/kg	5		10/30/24 21:50
Dichlorodifluoromethane	965	U	965	289	ug/kg	5		10/30/24 21:50
Ethylbenzene	451		241	75.3	ug/kg	5		10/30/24 21:50
Freon-113	965	U	965	299	ug/kg	5		10/30/24 21:50
Hexachlorobutadiene	193	U	193	59.8	ug/kg	5		10/30/24 21:50
Isopropylbenzene (Cumene)	1480		241	75.3	ug/kg	5		10/30/24 21:50
Methylene chloride	965	U	965	299	ug/kg	5		10/30/24 21:50
Methyl-t-butyl ether	965	U	965	299	ug/kg	5		10/30/24 21:50
Naphthalene	15100		241	75.3	ug/kg	5		10/30/24 21:50
n-Butylbenzene	4340		241	75.3	ug/kg	5		10/30/24 21:50
n-Propylbenzene	2820		241	75.3	ug/kg	5		10/30/24 21:50
o-Xylene	2140		241	75.3	ug/kg	5		10/30/24 21:50
P & M -Xylene	825		482	145	ug/kg	5		10/30/24 21:50
sec-Butylbenzene	2890		241	75.3	ug/kg	5		10/30/24 21:50
Styrene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
tert-Butylbenzene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
Tetrachloroethene	121	U	121	37.6	ug/kg	5		10/30/24 21:50
Toluene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
trans-1,2-Dichloroethene	241	U	241	75.3	ug/kg	5		10/30/24 21:50
trans-1,3-Dichloropropene	121	U	121	37.6	ug/kg	5		10/30/24 21:50
Trichloroethene	96.5	U	96.5	30.9	ug/kg	5		10/30/24 21:50
Trichlorofluoromethane	482	U	482	145	ug/kg	5		10/30/24 21:50
Vinyl acetate	965	U	965	299	ug/kg	5		10/30/24 21:50
Vinyl chloride	7.72	U	7.72	2.41	ug/kg	5		10/30/24 21:50
Xylenes (total)	2960		724	220	ug/kg	5		10/30/24 21:50
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		71-136		%	5		10/30/24 21:50
4-Bromofluorobenzene (surr)	215	*	55-151		%	5		10/30/24 21:50
Toluene-d8 (surr)	102		85-116		%	5		10/30/24 21:50

Print Date: 12/12/2024 10:12:55AM

Results of **14-2024**

Client Sample ID: **14-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232001
Lab Project ID: 1246232

Collection Date: 10/22/24 12:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):84.6
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS23925
Analytical Method: SW8260D
Analyst: EJB
Analytical Date/Time: 10/30/24 21:50
Container ID: 1246232001-B

Prep Batch: VXX42293
Prep Method: SW5035A
Prep Date/Time: 10/22/24 12:15
Prep Initial Wt./Vol.: 37.74 g
Prep Extract Vol: 30.8097 mL

Print Date: 12/12/2024 10:12:55AM

Results of **28-2024**

Client Sample ID: **28-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232002
Lab Project ID: 1246232

Collection Date: 10/22/24 11:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):86.3
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	1690		572	143	ug/kg	20		11/18/24 00:31
2-Methylnaphthalene	1900		572	143	ug/kg	20		11/18/24 00:31
Acenaphthene	67.3		28.6	7.15	ug/kg	1		11/14/24 11:11
Acenaphthylene	59.9		28.6	7.15	ug/kg	1		11/14/24 11:11
Anthracene	38.6		28.6	7.15	ug/kg	1		11/14/24 11:11
Benzo(a)Anthracene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Benzo[a]pyrene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Benzo[b]Fluoranthene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Benzo[g,h,i]perylene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Benzo[k]fluoranthene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Chrysene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Dibenzo[a,h]anthracene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Fluoranthene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Fluorene	345		28.6	7.15	ug/kg	1		11/14/24 11:11
Indeno[1,2,3-c,d] pyrene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Naphthalene	620		22.9	5.72	ug/kg	1		11/14/24 11:11
Phenanthrene	457		28.6	7.15	ug/kg	1		11/14/24 11:11
Pyrene	28.6	U	28.6	7.15	ug/kg	1		11/14/24 11:11
Surrogates								
2-Methylnaphthalene-d10 (surr)	90.5		63-126		%	1		11/14/24 11:11
Fluoranthene-d10 (surr)	117		54-143		%	1		11/14/24 11:11

Batch Information

Analytical Batch: XMS14717
Analytical Method: 8270E SIM (PAH)
Analyst: C.M
Analytical Date/Time: 11/18/24 00:31
Container ID: 1246232002-A

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.801 g
Prep Extract Vol: 5 mL

Analytical Batch: XMS14710
Analytical Method: 8270E SIM (PAH)
Analyst: HBL
Analytical Date/Time: 11/14/24 11:11
Container ID: 1246232002-A

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.801 g
Prep Extract Vol: 5 mL

Print Date: 12/12/2024 10:12:55AM

Results of **28-2024**

Client Sample ID: **28-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232002
Lab Project ID: 1246232

Collection Date: 10/22/24 11:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):86.3
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	878		22.9	10.3	mg/kg	1		11/13/24 23:44
Surrogates								
5a Androstane (surr)	89.2		50-150		%	1		11/13/24 23:44

Batch Information

Analytical Batch: XFC17107
Analytical Method: AK102
Analyst: T.L
Analytical Date/Time: 11/13/24 23:44
Container ID: 1246232002-A

Prep Batch: XXX50729
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.801 g
Prep Extract Vol: 5 mL

Print Date: 12/12/2024 10:12:55AM

Results of **28-2024**

Client Sample ID: **28-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232002
Lab Project ID: 1246232

Collection Date: 10/22/24 11:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):86.3
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	147	U	147	45.6	ug/kg	5		10/30/24 22:06
1,1,1-Trichloroethane	184	U	184	57.4	ug/kg	5		10/30/24 22:06
1,1,2,2-Tetrachloroethane	14.7	U	14.7	4.56	ug/kg	5		10/30/24 22:06
1,1,2-Trichloroethane	7.36	U	7.36	3.68	ug/kg	5		10/30/24 22:06
1,1-Dichloroethane	184	U	184	57.4	ug/kg	5		10/30/24 22:06
1,1-Dichloroethene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
1,1-Dichloropropene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
1,2,3-Trichlorobenzene	736	U	736	221	ug/kg	5		10/30/24 22:06
1,2,3-Trichloropropane	14.7	U	14.7	4.56	ug/kg	5		10/30/24 22:06
1,2,4-Trichlorobenzene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
1,2,4-Trimethylbenzene	9840		736	221	ug/kg	5		10/30/24 22:06
1,2-Dibromo-3-chloropropane	736	U	736	228	ug/kg	5		10/30/24 22:06
1,2-Dibromoethane	11.0	U	11.0	5.52	ug/kg	5		10/30/24 22:06
1,2-Dichlorobenzene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
1,2-Dichloroethane	14.7	U	14.7	5.15	ug/kg	5		10/30/24 22:06
1,2-Dichloropropane	73.6	U	73.6	36.8	ug/kg	5		10/30/24 22:06
1,3,5-Trimethylbenzene	2660		184	57.4	ug/kg	5		10/30/24 22:06
1,3-Dichlorobenzene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
1,3-Dichloropropane	73.6	U	73.6	22.8	ug/kg	5		10/30/24 22:06
1,4-Dichlorobenzene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
2,2-Dichloropropane	184	U	184	57.4	ug/kg	5		10/30/24 22:06
2-Butanone (MEK)	1840	U	1840	574	ug/kg	5		10/30/24 22:06
2-Chlorotoluene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
2-Hexanone	884	U	884	442	ug/kg	5		10/30/24 22:06
4-Chlorotoluene	147	U	147	73.6	ug/kg	5		10/30/24 22:06
4-Isopropyltoluene	3610		589	295	ug/kg	5		10/30/24 22:06
4-Methyl-2-pentanone (MIBK)	1840	U	1840	574	ug/kg	5		10/30/24 22:06
Acetone	1840	U	1840	810	ug/kg	5		10/30/24 22:06
Benzene	92.0	U	92.0	28.7	ug/kg	5		10/30/24 22:06
Bromobenzene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
Bromochloromethane	184	U	184	57.4	ug/kg	5		10/30/24 22:06
Bromodichloromethane	14.7	U	14.7	4.56	ug/kg	5		10/30/24 22:06
Bromoform	184	U	184	57.4	ug/kg	5		10/30/24 22:06
Bromomethane	147	U	147	58.9	ug/kg	5		10/30/24 22:06
Carbon disulfide	736	U	736	228	ug/kg	5		10/30/24 22:06
Carbon tetrachloride	92.0	U	92.0	28.7	ug/kg	5		10/30/24 22:06
Chlorobenzene	184	U	184	57.4	ug/kg	5		10/30/24 22:06

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Results of **28-2024**

Client Sample ID: **28-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232002
Lab Project ID: 1246232

Collection Date: 10/22/24 11:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):86.3
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroethane	1470	U	1470	456	ug/kg	5		10/30/24 22:06
Chloroform	44.2	U	44.2	22.1	ug/kg	5		10/30/24 22:06
Chloromethane	184	U	184	57.4	ug/kg	5		10/30/24 22:06
cis-1,2-Dichloroethene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
cis-1,3-Dichloropropene	92.0	U	92.0	28.7	ug/kg	5		10/30/24 22:06
Dibromochloromethane	36.8	U	36.8	11.0	ug/kg	5		10/30/24 22:06
Dibromomethane	184	U	184	57.4	ug/kg	5		10/30/24 22:06
Dichlorodifluoromethane	736	U	736	221	ug/kg	5		10/30/24 22:06
Ethylbenzene	277		184	57.4	ug/kg	5		10/30/24 22:06
Freon-113	736	U	736	228	ug/kg	5		10/30/24 22:06
Hexachlorobutadiene	147	U	147	45.6	ug/kg	5		10/30/24 22:06
Isopropylbenzene (Cumene)	1000		184	57.4	ug/kg	5		10/30/24 22:06
Methylene chloride	736	U	736	228	ug/kg	5		10/30/24 22:06
Methyl-t-butyl ether	736	U	736	228	ug/kg	5		10/30/24 22:06
Naphthalene	5090		184	57.4	ug/kg	5		10/30/24 22:06
n-Butylbenzene	2780		184	57.4	ug/kg	5		10/30/24 22:06
n-Propylbenzene	2430		184	57.4	ug/kg	5		10/30/24 22:06
o-Xylene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
P & M -Xylene	368	U	368	110	ug/kg	5		10/30/24 22:06
sec-Butylbenzene	2320		184	57.4	ug/kg	5		10/30/24 22:06
Styrene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
tert-Butylbenzene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
Tetrachloroethene	92.0	U	92.0	28.7	ug/kg	5		10/30/24 22:06
Toluene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
trans-1,2-Dichloroethene	184	U	184	57.4	ug/kg	5		10/30/24 22:06
trans-1,3-Dichloropropene	92.0	U	92.0	28.7	ug/kg	5		10/30/24 22:06
Trichloroethene	73.6	U	73.6	23.6	ug/kg	5		10/30/24 22:06
Trichlorofluoromethane	368	U	368	110	ug/kg	5		10/30/24 22:06
Vinyl acetate	736	U	736	228	ug/kg	5		10/30/24 22:06
Vinyl chloride	5.89	U	5.89	1.84	ug/kg	5		10/30/24 22:06
Xylenes (total)	552	U	552	168	ug/kg	5		10/30/24 22:06
Surrogates								
1,2-Dichloroethane-D4 (surr)	99.5		71-136		%	5		10/30/24 22:06
4-Bromofluorobenzene (surr)	192	*	55-151		%	5		10/30/24 22:06
Toluene-d8 (surr)	99.3		85-116		%	5		10/30/24 22:06

Print Date: 12/12/2024 10:12:55AM

Results of **28-2024**

Client Sample ID: **28-2024**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232002
Lab Project ID: 1246232

Collection Date: 10/22/24 11:15
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):86.3
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS23925
Analytical Method: SW8260D
Analyst: EJB
Analytical Date/Time: 10/30/24 22:06
Container ID: 1246232002-B

Prep Batch: VXX42293
Prep Method: SW5035A
Prep Date/Time: 10/22/24 11:15
Prep Initial Wt./Vol.: 50.166 g
Prep Extract Vol: 31.8746 mL

Print Date: 12/12/2024 10:12:55AM

Results of **Duplicate**

Client Sample ID: **Duplicate**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232003
Lab Project ID: 1246232

Collection Date: 10/22/24 08:00
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):85.1
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	10300		580	145	ug/kg	20		11/18/24 18:35
2-Methylnaphthalene	14000		1160	290	ug/kg	40		12/06/24 13:13
Acenaphthene	147		29.0	7.25	ug/kg	1		11/14/24 11:27
Acenaphthylene	241		29.0	7.25	ug/kg	1		11/14/24 11:27
Anthracene	42.0		29.0	7.25	ug/kg	1		11/14/24 11:27
Benzo(a)Anthracene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Benzo[a]pyrene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Benzo[b]Fluoranthene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Benzo[g,h,i]perylene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Benzo[k]fluoranthene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Chrysene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Dibenzo[a,h]anthracene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Fluoranthene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Fluorene	408		29.0	7.25	ug/kg	1		11/14/24 11:27
Indeno[1,2,3-c,d] pyrene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Naphthalene	8090		464	116	ug/kg	20		11/18/24 18:35
Phenanthrene	353		29.0	7.25	ug/kg	1		11/14/24 11:27
Pyrene	29.0	U	29.0	7.25	ug/kg	1		11/14/24 11:27
Surrogates								
2-Methylnaphthalene-d10 (surr)	98.1		63-126		%	1		11/14/24 11:27
Fluoranthene-d10 (surr)	107		54-143		%	1		11/14/24 11:27

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Results of **Duplicate**

Client Sample ID: **Duplicate**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232003
Lab Project ID: 1246232

Collection Date: 10/22/24 08:00
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):85.1
Location:

Results by **Polynuclear Aromatics GC/MS**

Batch Information

Analytical Batch: XMS14710
Analytical Method: 8270E SIM (PAH)
Analyst: HBL
Analytical Date/Time: 11/14/24 11:27
Container ID: 1246232003-A

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.796 g
Prep Extract Vol: 5 mL

Analytical Batch: XMS14741
Analytical Method: 8270E SIM (PAH)
Analyst: C.M
Analytical Date/Time: 12/06/24 13:13
Container ID: 1246232003-A

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.796 g
Prep Extract Vol: 5 mL

Analytical Batch: XMS14737
Analytical Method: 8270E SIM (PAH)
Analyst: C.M
Analytical Date/Time: 11/18/24 18:35
Container ID: 1246232003-A

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.796 g
Prep Extract Vol: 5 mL

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Results of **Duplicate**

Client Sample ID: **Duplicate**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232003
Lab Project ID: 1246232

Collection Date: 10/22/24 08:00
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):85.1
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	2700		23.2	10.4	mg/kg	1		11/13/24 23:54
Surrogates								
5a Androstane (surr)	78		50-150		%	1		11/13/24 23:54

Batch Information

Analytical Batch: XFC17107
Analytical Method: AK102
Analyst: T.L
Analytical Date/Time: 11/13/24 23:54
Container ID: 1246232003-A

Prep Batch: XXX50729
Prep Method: SW3550C
Prep Date/Time: 10/31/24 12:56
Prep Initial Wt./Vol.: 22.796 g
Prep Extract Vol: 5 mL

Print Date: 12/12/2024 10:12:55AM

Results of **Duplicate**

Client Sample ID: **Duplicate**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232003
Lab Project ID: 1246232

Collection Date: 10/22/24 08:00
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):85.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	147	U	147	45.7	ug/kg	5		10/30/24 22:22
1,1,1-Trichloroethane	184	U	184	57.5	ug/kg	5		10/30/24 22:22
1,1,2,2-Tetrachloroethane	14.7	U	14.7	4.57	ug/kg	5		10/30/24 22:22
1,1,2-Trichloroethane	7.37	U	7.37	3.68	ug/kg	5		10/30/24 22:22
1,1-Dichloroethane	184	U	184	57.5	ug/kg	5		10/30/24 22:22
1,1-Dichloroethene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
1,1-Dichloropropene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
1,2,3-Trichlorobenzene	737	U	737	221	ug/kg	5		10/30/24 22:22
1,2,3-Trichloropropane	14.7	U	14.7	4.57	ug/kg	5		10/30/24 22:22
1,2,4-Trichlorobenzene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
1,2,4-Trimethylbenzene	14700		737	221	ug/kg	5		10/30/24 22:22
1,2-Dibromo-3-chloropropane	737	U	737	228	ug/kg	5		10/30/24 22:22
1,2-Dibromoethane	11.1	U	11.1	5.53	ug/kg	5		10/30/24 22:22
1,2-Dichlorobenzene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
1,2-Dichloroethane	14.7	U	14.7	5.16	ug/kg	5		10/30/24 22:22
1,2-Dichloropropane	73.7	U	73.7	36.8	ug/kg	5		10/30/24 22:22
1,3,5-Trimethylbenzene	3310		184	57.5	ug/kg	5		10/30/24 22:22
1,3-Dichlorobenzene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
1,3-Dichloropropane	73.7	U	73.7	22.8	ug/kg	5		10/30/24 22:22
1,4-Dichlorobenzene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
2,2-Dichloropropane	184	U	184	57.5	ug/kg	5		10/30/24 22:22
2-Butanone (MEK)	1840	U	1840	575	ug/kg	5		10/30/24 22:22
2-Chlorotoluene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
2-Hexanone	884	U	884	442	ug/kg	5		10/30/24 22:22
4-Chlorotoluene	147	U	147	73.7	ug/kg	5		10/30/24 22:22
4-Isopropyltoluene	4780		590	295	ug/kg	5		10/30/24 22:22
4-Methyl-2-pentanone (MIBK)	1840	U	1840	575	ug/kg	5		10/30/24 22:22
Acetone	1840	U	1840	811	ug/kg	5		10/30/24 22:22
Benzene	92.1	U	92.1	28.7	ug/kg	5		10/30/24 22:22
Bromobenzene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
Bromochloromethane	184	U	184	57.5	ug/kg	5		10/30/24 22:22
Bromodichloromethane	14.7	U	14.7	4.57	ug/kg	5		10/30/24 22:22
Bromoform	184	U	184	57.5	ug/kg	5		10/30/24 22:22
Bromomethane	147	U	147	59.0	ug/kg	5		10/30/24 22:22
Carbon disulfide	737	U	737	228	ug/kg	5		10/30/24 22:22
Carbon tetrachloride	92.1	U	92.1	28.7	ug/kg	5		10/30/24 22:22
Chlorobenzene	184	U	184	57.5	ug/kg	5		10/30/24 22:22

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Results of **Duplicate**

Client Sample ID: **Duplicate**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232003
Lab Project ID: 1246232

Collection Date: 10/22/24 08:00
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):85.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroethane	1470	U	1470	457	ug/kg	5		10/30/24 22:22
Chloroform	44.2	U	44.2	22.1	ug/kg	5		10/30/24 22:22
Chloromethane	184	U	184	57.5	ug/kg	5		10/30/24 22:22
cis-1,2-Dichloroethene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
cis-1,3-Dichloropropene	92.1	U	92.1	28.7	ug/kg	5		10/30/24 22:22
Dibromochloromethane	36.8	U	36.8	11.1	ug/kg	5		10/30/24 22:22
Dibromomethane	184	U	184	57.5	ug/kg	5		10/30/24 22:22
Dichlorodifluoromethane	737	U	737	221	ug/kg	5		10/30/24 22:22
Ethylbenzene	438		184	57.5	ug/kg	5		10/30/24 22:22
Freon-113	737	U	737	228	ug/kg	5		10/30/24 22:22
Hexachlorobutadiene	147	U	147	45.7	ug/kg	5		10/30/24 22:22
Isopropylbenzene (Cumene)	1330		184	57.5	ug/kg	5		10/30/24 22:22
Methylene chloride	737	U	737	228	ug/kg	5		10/30/24 22:22
Methyl-t-butyl ether	737	U	737	228	ug/kg	5		10/30/24 22:22
Naphthalene	13900		184	57.5	ug/kg	5		10/30/24 22:22
n-Butylbenzene	3510		184	57.5	ug/kg	5		10/30/24 22:22
n-Propylbenzene	2520		184	57.5	ug/kg	5		10/30/24 22:22
o-Xylene	2010		184	57.5	ug/kg	5		10/30/24 22:22
P & M -Xylene	783		368	111	ug/kg	5		10/30/24 22:22
sec-Butylbenzene	2490		184	57.5	ug/kg	5		10/30/24 22:22
Styrene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
tert-Butylbenzene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
Tetrachloroethene	92.1	U	92.1	28.7	ug/kg	5		10/30/24 22:22
Toluene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
trans-1,2-Dichloroethene	184	U	184	57.5	ug/kg	5		10/30/24 22:22
trans-1,3-Dichloropropene	92.1	U	92.1	28.7	ug/kg	5		10/30/24 22:22
Trichloroethene	73.7	U	73.7	23.6	ug/kg	5		10/30/24 22:22
Trichlorofluoromethane	368	U	368	111	ug/kg	5		10/30/24 22:22
Vinyl acetate	737	U	737	228	ug/kg	5		10/30/24 22:22
Vinyl chloride	5.90	U	5.90	1.84	ug/kg	5		10/30/24 22:22
Xylenes (total)	2790		553	168	ug/kg	5		10/30/24 22:22
Surrogates								
1,2-Dichloroethane-D4 (surr)	101		71-136		%	5		10/30/24 22:22
4-Bromofluorobenzene (surr)	204	*	55-151		%	5		10/30/24 22:22
Toluene-d8 (surr)	101		85-116		%	5		10/30/24 22:22

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Results of **Duplicate**

Client Sample ID: **Duplicate**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232003
Lab Project ID: 1246232

Collection Date: 10/22/24 08:00
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):85.1
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS23925
Analytical Method: SW8260D
Analyst: EJB
Analytical Date/Time: 10/30/24 22:22
Container ID: 1246232003-B

Prep Batch: VXX42293
Prep Method: SW5035A
Prep Date/Time: 10/22/24 08:00
Prep Initial Wt./Vol.: 52.217 g
Prep Extract Vol: 32.7619 mL

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232004
Lab Project ID: 1246232

Collection Date: 10/22/24 07:30
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	20.0	U	20.0	6.21	ug/kg	1		10/31/24 14:59
1,1,1-Trichloroethane	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,1,2,2-Tetrachloroethane	2.00	U	2.00	0.621	ug/kg	1		10/31/24 14:59
1,1,2-Trichloroethane	1.00	U	1.00	0.501	ug/kg	1		10/31/24 14:59
1,1-Dichloroethane	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,1-Dichloroethene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,1-Dichloropropene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,2,3-Trichlorobenzene	100	U	100	30.1	ug/kg	1		10/31/24 14:59
1,2,3-Trichloropropane	2.00	U	2.00	0.621	ug/kg	1		10/31/24 14:59
1,2,4-Trichlorobenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,2,4-Trimethylbenzene	100	U	100	30.1	ug/kg	1		10/31/24 14:59
1,2-Dibromo-3-chloropropane	100	U	100	31.1	ug/kg	1		10/31/24 14:59
1,2-Dibromoethane	1.50	U	1.50	0.752	ug/kg	1		10/31/24 14:59
1,2-Dichlorobenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,2-Dichloroethane	2.00	U	2.00	0.702	ug/kg	1		10/31/24 14:59
1,2-Dichloropropane	10.0	U	10.0	5.01	ug/kg	1		10/31/24 14:59
1,3,5-Trimethylbenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,3-Dichlorobenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
1,3-Dichloropropane	10.0	U	10.0	3.11	ug/kg	1		10/31/24 14:59
1,4-Dichlorobenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
2,2-Dichloropropane	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
2-Butanone (MEK)	251	U	251	78.2	ug/kg	1		10/31/24 14:59
2-Chlorotoluene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
2-Hexanone	120	U	120	60.1	ug/kg	1		10/31/24 14:59
4-Chlorotoluene	20.0	U	20.0	10.0	ug/kg	1		10/31/24 14:59
4-Isopropyltoluene	80.2	U	80.2	40.1	ug/kg	1		10/31/24 14:59
4-Methyl-2-pentanone (MIBK)	251	U	251	78.2	ug/kg	1		10/31/24 14:59
Acetone	251	U	251	110	ug/kg	1		10/31/24 14:59
Benzene	12.5	U	12.5	3.91	ug/kg	1		10/31/24 14:59
Bromobenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Bromochloromethane	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Bromodichloromethane	2.00	U	2.00	0.621	ug/kg	1		10/31/24 14:59
Bromoform	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Bromomethane	20.0	U	20.0	8.02	ug/kg	1		10/31/24 14:59
Carbon disulfide	100	U	100	31.1	ug/kg	1		10/31/24 14:59
Carbon tetrachloride	12.5	U	12.5	3.91	ug/kg	1		10/31/24 14:59
Chlorobenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232004
Lab Project ID: 1246232

Collection Date: 10/22/24 07:30
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroethane	200	U	200	62.1	ug/kg	1		10/31/24 14:59
Chloroform	6.01	U	6.01	3.01	ug/kg	1		10/31/24 14:59
Chloromethane	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
cis-1,2-Dichloroethene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
cis-1,3-Dichloropropene	12.5	U	12.5	3.91	ug/kg	1		10/31/24 14:59
Dibromochloromethane	5.01	U	5.01	1.50	ug/kg	1		10/31/24 14:59
Dibromomethane	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Dichlorodifluoromethane	100	U	100	30.1	ug/kg	1		10/31/24 14:59
Ethylbenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Freon-113	100	U	100	31.1	ug/kg	1		10/31/24 14:59
Hexachlorobutadiene	20.0	U	20.0	6.21	ug/kg	1		10/31/24 14:59
Isopropylbenzene (Cumene)	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Methylene chloride	100	U	100	31.1	ug/kg	1		10/31/24 14:59
Methyl-t-butyl ether	100	U	100	31.1	ug/kg	1		10/31/24 14:59
Naphthalene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
n-Butylbenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
n-Propylbenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
o-Xylene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
P & M -Xylene	50.1	U	50.1	15.0	ug/kg	1		10/31/24 14:59
sec-Butylbenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Styrene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
tert-Butylbenzene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
Tetrachloroethene	12.5	U	12.5	3.91	ug/kg	1		10/31/24 14:59
Toluene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
trans-1,2-Dichloroethene	25.1	U	25.1	7.82	ug/kg	1		10/31/24 14:59
trans-1,3-Dichloropropene	12.5	U	12.5	3.91	ug/kg	1		10/31/24 14:59
Trichloroethene	10.0	U	10.0	3.21	ug/kg	1		10/31/24 14:59
Trichlorofluoromethane	50.1	U	50.1	15.0	ug/kg	1		10/31/24 14:59
Vinyl acetate	100	U	100	31.1	ug/kg	1		10/31/24 14:59
Vinyl chloride	0.802	U	0.802	0.251	ug/kg	1		10/31/24 14:59
Xylenes (total)	75.2	U	75.2	22.8	ug/kg	1		10/31/24 14:59
Surrogates								
1,2-Dichloroethane-D4 (surr)	101		71-136		%	1		10/31/24 14:59
4-Bromofluorobenzene (surr)	128		55-151		%	1		10/31/24 14:59
Toluene-d8 (surr)	99.7		85-116		%	1		10/31/24 14:59

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Soldotna AT+T**
Lab Sample ID: 1246232004
Lab Project ID: 1246232

Collection Date: 10/22/24 07:30
Received Date: 10/25/24 11:12
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS23930
Analytical Method: SW8260D
Analyst: CJG
Analytical Date/Time: 10/31/24 14:59
Container ID: 1246232004-A

Prep Batch: VXX42304
Prep Method: SW5035A
Prep Date/Time: 10/22/24 07:30
Prep Initial Wt./Vol.: 49.893 g
Prep Extract Vol: 25 mL

Print Date: 12/12/2024 10:12:55AM

Method Blank

Blank ID: MB for HBN 1902483 [SPT/12179]
Blank Lab ID: 1797647

Matrix: Soil/Solid (dry weight)

QC for Samples:
1246232001, 1246232002, 1246232003

Results by **SM21 2540G**

Parameter	Results	LOQ/CL	DL	LOD	Units
Total Solids	100				%

Batch Information

Analytical Batch: SPT12179
Analytical Method: SM21 2540G
Instrument:
Analyst: SDP
Analytical Date/Time: 10/25/2024 5:03:00PM

Print Date: 12/12/2024 10:12:58AM

Duplicate Sample Summary

Original Sample ID: 1246221001
Duplicate Sample ID: 1797648
QC for Samples:

Analysis Date: 10/25/2024 17:03
Matrix: Soil/Solid (dry weight)

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	85.1	85.2	%	0.17	(< 15)

Batch Information

Analytical Batch: SPT12179
Analytical Method: SM21 2540G
Instrument:
Analyst: SDP

Print Date: 12/12/2024 10:13:00AM

Duplicate Sample Summary

Original Sample ID: 1246222016
Duplicate Sample ID: 1797649
QC for Samples:
1246232001, 1246232002, 1246232003

Analysis Date: 10/25/2024 17:03
Matrix: Soil/Solid (dry weight)

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	91.2	91.0	%	0.18	(< 15)

Batch Information

Analytical Batch: SPT12179
Analytical Method: SM21 2540G
Instrument:
Analyst: SDP

Print Date: 12/12/2024 10:13:00AM

Method Blank

Blank ID: MB for HBN 1902830 [VXX/42293]
Blank Lab ID: 1798922

Matrix: Soil/Solid (dry weight)

QC for Samples:
1246232001, 1246232002, 1246232003

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	LOD	Units
1,1,1,2-Tetrachloroethane	15.0U	20.0	6.20	15.0	ug/kg
1,1,1-Trichloroethane	18.8U	25.0	7.80	18.8	ug/kg
1,1,2,2-Tetrachloroethane	1.50U	2.00	0.620	1.50	ug/kg
1,1,2-Trichloroethane	0.750U	1.00	0.500	0.750	ug/kg
1,1-Dichloroethane	18.8U	25.0	7.80	18.8	ug/kg
1,1-Dichloroethene	18.8U	25.0	7.80	18.8	ug/kg
1,1-Dichloropropene	18.8U	25.0	7.80	18.8	ug/kg
1,2,3-Trichlorobenzene	75.0U	100	30.0	75.0	ug/kg
1,2,3-Trichloropropane	1.50U	2.00	0.620	1.50	ug/kg
1,2,4-Trichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
1,2,4-Trimethylbenzene	75.0U	100	30.0	75.0	ug/kg
1,2-Dibromo-3-chloropropane	75.0U	100	31.0	75.0	ug/kg
1,2-Dibromoethane	1.13U	1.50	0.750	1.13	ug/kg
1,2-Dichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
1,2-Dichloroethane	1.50U	2.00	0.700	1.50	ug/kg
1,2-Dichloropropane	7.50U	10.0	5.00	7.50	ug/kg
1,3,5-Trimethylbenzene	18.8U	25.0	7.80	18.8	ug/kg
1,3-Dichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
1,3-Dichloropropane	7.50U	10.0	3.10	7.50	ug/kg
1,4-Dichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
2,2-Dichloropropane	18.8U	25.0	7.80	18.8	ug/kg
2-Butanone (MEK)	188U	250	78.0	188	ug/kg
2-Chlorotoluene	18.8U	25.0	7.80	18.8	ug/kg
2-Hexanone	90.0U	120	60.0	90.0	ug/kg
4-Chlorotoluene	15.0U	20.0	10.0	15.0	ug/kg
4-Isopropyltoluene	60.0U	80.0	40.0	60.0	ug/kg
4-Methyl-2-pentanone (MIBK)	188U	250	78.0	188	ug/kg
Acetone	188U	250	110	188	ug/kg
Benzene	9.38U	12.5	3.90	9.38	ug/kg
Bromobenzene	18.8U	25.0	7.80	18.8	ug/kg
Bromochloromethane	18.8U	25.0	7.80	18.8	ug/kg
Bromodichloromethane	1.50U	2.00	0.620	1.50	ug/kg
Bromoform	18.8U	25.0	7.80	18.8	ug/kg
Bromomethane	15.0U	20.0	8.00	15.0	ug/kg
Carbon disulfide	75.0U	100	31.0	75.0	ug/kg
Carbon tetrachloride	9.38U	12.5	3.90	9.38	ug/kg
Chlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
Chloroethane	150U	200	62.0	150	ug/kg
Chloroform	4.50U	6.00	3.00	4.50	ug/kg
Chloromethane	18.8U	25.0	7.80	18.8	ug/kg
cis-1,2-Dichloroethene	18.8U	25.0	7.80	18.8	ug/kg
cis-1,3-Dichloropropene	9.38U	12.5	3.90	9.38	ug/kg

Method Blank

Blank ID: MB for HBN 1902830 [VXX/42293]
Blank Lab ID: 1798922

Matrix: Soil/Solid (dry weight)

QC for Samples:
1246232001, 1246232002, 1246232003

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	LOD	Units
Dibromochloromethane	3.75U	5.00	1.50	3.75	ug/kg
Dibromomethane	18.8U	25.0	7.80	18.8	ug/kg
Dichlorodifluoromethane	75.0U	100	30.0	75.0	ug/kg
Ethylbenzene	18.8U	25.0	7.80	18.8	ug/kg
Freon-113	75.0U	100	31.0	75.0	ug/kg
Hexachlorobutadiene	15.0U	20.0	6.20	15.0	ug/kg
Isopropylbenzene (Cumene)	18.8U	25.0	7.80	18.8	ug/kg
Methylene chloride	75.0U	100	31.0	75.0	ug/kg
Methyl-t-butyl ether	75.0U	100	31.0	75.0	ug/kg
Naphthalene	18.8U	25.0	7.80	18.8	ug/kg
n-Butylbenzene	18.8U	25.0	7.80	18.8	ug/kg
n-Propylbenzene	18.8U	25.0	7.80	18.8	ug/kg
o-Xylene	18.8U	25.0	7.80	18.8	ug/kg
P & M -Xylene	37.5U	50.0	15.0	37.5	ug/kg
sec-Butylbenzene	18.8U	25.0	7.80	18.8	ug/kg
Styrene	18.8U	25.0	7.80	18.8	ug/kg
tert-Butylbenzene	18.8U	25.0	7.80	18.8	ug/kg
Tetrachloroethene	9.38U	12.5	3.90	9.38	ug/kg
Toluene	18.8U	25.0	7.80	18.8	ug/kg
trans-1,2-Dichloroethene	18.8U	25.0	7.80	18.8	ug/kg
trans-1,3-Dichloropropene	9.38U	12.5	3.90	9.38	ug/kg
Trichloroethene	7.50U	10.0	3.20	7.50	ug/kg
Trichlorofluoromethane	37.5U	50.0	15.0	37.5	ug/kg
Vinyl acetate	75.0U	100	31.0	75.0	ug/kg
Vinyl chloride	0.600U	0.800	0.250	0.600	ug/kg
Xylenes (total)	56.3U	75.0	22.8	56.3	ug/kg
Surrogates					
1,2-Dichloroethane-D4 (surr)	102	71-136		0	%
4-Bromofluorobenzene (surr)	95.7	55-151		0	%
Toluene-d8 (surr)	98.2	85-116		0	%

Batch Information

Analytical Batch: VMS23925
Analytical Method: SW8260D
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: EJB
Analytical Date/Time: 10/30/2024 11:51:00AM

Prep Batch: VXX42293
Prep Method: SW5035A
Prep Date/Time: 10/30/2024 6:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL

Print Date: 12/12/2024 10:13:04AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [VXX42293]
Blank Spike Lab ID: 1798923
Date Analyzed: 10/30/2024 12:07

Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **SW8260D**

Blank Spike (ug/kg)

Parameter	Spike	Result	Rec (%)	CL
1,1,1,2-Tetrachloroethane	750	769	102	(78-125)
1,1,1-Trichloroethane	750	812	108	(73-130)
1,1,2,2-Tetrachloroethane	750	765	102	(70-124)
1,1,2-Trichloroethane	750	764	102	(78-121)
1,1-Dichloroethane	750	773	103	(76-125)
1,1-Dichloroethene	750	842	112	(70-131)
1,1-Dichloropropene	750	798	106	(76-125)
1,2,3-Trichlorobenzene	750	708	94	(66-130)
1,2,3-Trichloropropane	750	744	99	(73-125)
1,2,4-Trichlorobenzene	750	747	100	(67-129)
1,2,4-Trimethylbenzene	750	768	102	(75-123)
1,2-Dibromo-3-chloropropane	750	716	95	(61-132)
1,2-Dibromoethane	750	764	102	(78-122)
1,2-Dichlorobenzene	750	750	100	(78-121)
1,2-Dichloroethane	750	752	100	(73-128)
1,2-Dichloropropane	750	780	104	(76-123)
1,3,5-Trimethylbenzene	750	783	104	(73-124)
1,3-Dichlorobenzene	750	756	101	(77-121)
1,3-Dichloropropane	750	755	101	(77-121)
1,4-Dichlorobenzene	750	758	101	(75-120)
2,2-Dichloropropane	750	850	113	(67-133)
2-Butanone (MEK)	2250	2330	104	(51-148)
2-Chlorotoluene	750	779	104	(75-122)
2-Hexanone	2250	2290	102	(53-145)
4-Chlorotoluene	750	754	100	(72-124)
4-Isopropyltoluene	750	796	106	(73-127)
4-Methyl-2-pentanone (MIBK)	2250	2180	97	(65-135)
Acetone	2250	2360	105	(36-164)
Benzene	750	775	103	(77-121)
Bromobenzene	750	791	106	(78-121)
Bromochloromethane	750	728	97	(78-125)
Bromodichloromethane	750	832	111	(75-127)
Bromoform	750	819	109	(67-132)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [VXX42293]
Blank Spike Lab ID: 1798923
Date Analyzed: 10/30/2024 12:07

Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **SW8260D**

Blank Spike (ug/kg)

Parameter	Spike	Result	Rec (%)	CL
Bromomethane	750	738	98	(53-143)
Carbon disulfide	1130	1340	119	(63-132)
Carbon tetrachloride	750	869	116	(70-135)
Chlorobenzene	750	769	103	(79-120)
Chloroethane	750	771	103	(59-139)
Chloroform	750	745	99	(78-123)
Chloromethane	750	730	97	(50-136)
cis-1,2-Dichloroethene	750	776	103	(77-123)
cis-1,3-Dichloropropene	750	821	110	(74-126)
Dibromochloromethane	750	819	109	(74-126)
Dibromomethane	750	779	104	(78-125)
Dichlorodifluoromethane	750	780	104	(29-149)
Ethylbenzene	750	754	101	(76-122)
Freon-113	1130	1240	111	(66-136)
Hexachlorobutadiene	750	876	117	(61-135)
Isopropylbenzene (Cumene)	750	768	102	(68-134)
Methylene chloride	750	757	101	(70-128)
Methyl-t-butyl ether	1130	1100	98	(73-125)
Naphthalene	750	643	86	(62-129)
n-Butylbenzene	750	814	109	(70-128)
n-Propylbenzene	750	795	106	(73-125)
o-Xylene	750	754	101	(77-123)
P & M -Xylene	1500	1510	101	(77-124)
sec-Butylbenzene	750	788	105	(73-126)
Styrene	750	754	101	(76-124)
tert-Butylbenzene	750	790	105	(73-125)
Tetrachloroethene	750	779	104	(73-128)
Toluene	750	756	101	(77-121)
trans-1,2-Dichloroethene	750	848	113	(74-125)
trans-1,3-Dichloropropene	750	810	108	(71-130)
Trichloroethene	750	793	106	(77-123)
Trichlorofluoromethane	750	842	112	(62-140)
Vinyl acetate	750	767	102	(50-151)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [VXX42293]
Blank Spike Lab ID: 1798923
Date Analyzed: 10/30/2024 12:07

Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **SW8260D**

Blank Spike (ug/kg)

Parameter	Spike	Result	Rec (%)	CL
Vinyl chloride	750	748	100	(56-135)
Xylenes (total)	2250	2260	101	(78-124)
Surrogates				
1,2-Dichloroethane-D4 (surr)	750		99	(71-136)
4-Bromofluorobenzene (surr)	750		96	(55-151)
Toluene-d8 (surr)	750		99	(85-116)

Batch Information

Analytical Batch: **VMS23925**
Analytical Method: **SW8260D**
Instrument: **VRA Agilent GC/MS 7890B/5977A**
Analyst: **EJB**

Prep Batch: **VXX42293**
Prep Method: **SW5035A**
Prep Date/Time: **10/30/2024 06:00**
Spike Init Wt./Vol.: 750 ug/kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1798924
MS Sample ID: 1798925 MS
MSD Sample ID: 1798926 MSD

Analysis Date: 10/30/2024 17:34
Analysis Date: 10/30/2024 15:11
Analysis Date: 10/30/2024 15:27
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **SW8260D**

		Matrix Spike (ug/kg)			Spike Duplicate (ug/kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	12.1U	604	647	107	604	657	109	78-125	1.50	(< 20)
1,1,1-Trichloroethane	15.1U	604	672	111	604	680	113	73-130	1.30	(< 20)
1,1,2,2-Tetrachloroethane	1.22U	604	655	108	604	671	111	70-124	2.40	(< 20)
1,1,2-Trichloroethane	0.606U	604	643	106	604	658	109	78-121	2.30	(< 20)
1,1-Dichloroethane	15.1U	604	646	107	604	653	108	76-125	1.20	(< 20)
1,1-Dichloroethene	15.1U	604	719	119	604	721	119	70-131	0.32	(< 20)
1,1-Dichloropropene	15.1U	604	659	109	604	666	110	76-125	1.00	(< 20)
1,2,3-Trichlorobenzene	60.6U	604	703	116	604	750	124	66-130	6.40	(< 20)
1,2,3-Trichloropropane	1.22U	604	626	104	604	623	103	73-125	0.47	(< 20)
1,2,4-Trichlorobenzene	15.1U	604	695	115	604	714	118	67-129	2.80	(< 20)
1,2,4-Trimethylbenzene	60.6U	604	655	108	604	656	109	75-123	0.13	(< 20)
1,2-Dibromo-3-chloropropane	60.6U	604	626	104	604	643	106	61-132	2.70	(< 20)
1,2-Dibromoethane	0.907U	604	644	107	604	662	110	78-122	2.70	(< 20)
1,2-Dichlorobenzene	15.1U	604	620	103	604	624	103	78-121	0.62	(< 20)
1,2-Dichloroethane	1.22U	604	626	104	604	639	106	73-128	2.10	(< 20)
1,2-Dichloropropane	6.06U	604	651	108	604	661	109	76-123	1.50	(< 20)
1,3,5-Trimethylbenzene	15.1U	604	658	109	604	640	106	73-124	2.90	(< 20)
1,3-Dichlorobenzene	15.1U	604	632	105	604	642	106	77-121	1.50	(< 20)
1,3-Dichloropropane	6.06U	604	630	104	604	642	106	77-121	2.00	(< 20)
1,4-Dichlorobenzene	15.1U	604	646	107	604	643	106	75-120	0.43	(< 20)
2,2-Dichloropropane	15.1U	604	716	118	604	717	119	67-133	0.19	(< 20)
2-Butanone (MEK)	152U	1810	1950	108	1810	2000	110	51-148	2.20	(< 20)
2-Chlorotoluene	15.1U	604	643	106	604	660	109	75-122	2.50	(< 20)
2-Hexanone	72.8U	1810	1920	106	1810	1990	110	53-145	3.40	(< 20)
4-Chlorotoluene	12.1U	604	643	106	604	639	106	72-124	0.63	(< 20)
4-Isopropyltoluene	48.5U	604	663	110	604	655	108	73-127	1.20	(< 20)
4-Methyl-2-pentanone (MIBK)	152U	1810	1820	100	1810	1870	103	65-135	3.00	(< 20)
Acetone	152U	1810	2140	118	1810	2090	115	36-164	2.30	(< 20)
Benzene	7.57U	604	640	106	604	651	108	77-121	1.60	(< 20)
Bromobenzene	15.1U	604	661	109	604	665	110	78-121	0.55	(< 20)
Bromochloromethane	15.1U	604	614	102	604	628	104	78-125	2.10	(< 20)
Bromodichloromethane	1.22U	604	698	116	604	705	117	75-127	0.89	(< 20)
Bromoform	15.1U	604	691	114	604	704	117	67-132	1.90	(< 20)
Bromomethane	12.1U	604	648	107	604	657	109	53-143	1.30	(< 20)
Carbon disulfide	60.6U	907	1180	130	907	1170	129	63-132	0.64	(< 20)
Carbon tetrachloride	7.57U	604	728	120	604	732	121	70-135	0.56	(< 20)
Chlorobenzene	15.1U	604	647	107	604	654	108	79-120	1.10	(< 20)

Print Date: 12/12/2024 10:13:09AM

Matrix Spike Summary

Original Sample ID: 1798924
MS Sample ID: 1798925 MS
MSD Sample ID: 1798926 MSD

Analysis Date: 10/30/2024 17:34
Analysis Date: 10/30/2024 15:11
Analysis Date: 10/30/2024 15:27
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **SW8260D**

		Matrix Spike (ug/kg)			Spike Duplicate (ug/kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Chloroethane	122U	604	622	103	604	616	102	59-139	0.88	(< 20)
Chloroform	3.64U	604	621	103	604	631	104	78-123	1.70	(< 20)
Chloromethane	15.1U	604	547	91	604	537	89	50-136	1.70	(< 20)
cis-1,2-Dichloroethene	15.1U	604	657	109	604	659	109	77-123	0.25	(< 20)
cis-1,3-Dichloropropene	7.57U	604	689	114	604	697	115	74-126	1.20	(< 20)
Dibromochloromethane	3.03U	604	703	116	604	708	117	74-126	0.68	(< 20)
Dibromomethane	15.1U	604	649	107	604	660	109	78-125	1.60	(< 20)
Dichlorodifluoromethane	60.6U	604	481	80	604	459	76	29-149	4.60	(< 20)
Ethylbenzene	15.1U	604	632	105	604	640	106	76-122	1.40	(< 20)
Freon-113	60.6U	907	1060	117	907	1050	116	66-136	0.44	(< 20)
Hexachlorobutadiene	12.1U	604	746	123	604	714	118	61-135	4.40	(< 20)
Isopropylbenzene (Cumene)	15.1U	604	645	107	604	647	107	68-134	0.35	(< 20)
Methylene chloride	60.6U	604	630	104	604	643	106	70-128	2.00	(< 20)
Methyl-t-butyl ether	60.6U	907	927	102	907	954	105	73-125	2.90	(< 20)
Naphthalene	15.1U	604	603	100	604	644	107	62-129	6.50	(< 20)
n-Butylbenzene	15.1U	604	674	111	604	666	110	70-128	1.10	(< 20)
n-Propylbenzene	15.1U	604	661	109	604	656	109	73-125	0.77	(< 20)
o-Xylene	15.1U	604	638	106	604	643	106	77-123	0.74	(< 20)
P & M -Xylene	30.3U	1210	1260	104	1210	1270	105	77-124	0.89	(< 20)
sec-Butylbenzene	15.1U	604	650	108	604	651	108	73-126	0.20	(< 20)
Styrene	15.1U	604	637	105	604	644	107	76-124	1.10	(< 20)
tert-Butylbenzene	15.1U	604	663	110	604	655	108	73-125	1.10	(< 20)
Tetrachloroethene	7.57U	604	650	108	604	653	108	73-128	0.56	(< 20)
Toluene	15.1U	604	630	104	604	643	106	77-121	1.90	(< 20)
trans-1,2-Dichloroethene	15.1U	604	755	125	604	725	120	74-125	4.00	(< 20)
trans-1,3-Dichloropropene	7.57U	604	685	113	604	698	116	71-130	1.90	(< 20)
Trichloroethene	6.06U	604	657	109	604	662	109	77-123	0.69	(< 20)
Trichlorofluoromethane	30.3U	604	681	113	604	671	111	62-140	1.50	(< 20)
Vinyl acetate	60.6U	604	629	104	604	644	107	50-151	2.40	(< 20)
Vinyl chloride	0.485U	604	563	93	604	573	95	56-135	1.90	(< 20)
Xylenes (total)	45.5U	1810	1890	105	1810	1910	105	78-124	0.84	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		604	601	100	604	600	99	71-136	0.22	
4-Bromofluorobenzene (surr)		899	1080	120	899	1090	121	55-151	1.10	
Toluene-d8 (surr)		604	607	100	604	608	101	85-116	0.29	

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Matrix Spike Summary

Original Sample ID: 1798924
MS Sample ID: 1798925 MS
MSD Sample ID: 1798926 MSD

Analysis Date:
Analysis Date: 10/30/2024 15:11
Analysis Date: 10/30/2024 15:27
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **SW8260D**

		Matrix Spike (%)			Spike Duplicate (%)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: VMS23925
Analytical Method: SW8260D
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: EJB
Analytical Date/Time: 10/30/2024 3:11:00PM

Prep Batch: VXX42293
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 10/30/2024 6:00:00AM
Prep Initial Wt./Vol.: 69.50g
Prep Extract Vol: 28.09mL

Print Date: 12/12/2024 10:13:09AM

Method Blank

Blank ID: MB for HBN 1902853 [VXX/42304]
Blank Lab ID: 1799017

Matrix: Soil/Solid (dry weight)

QC for Samples:
1246232004

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	LOD	Units
1,1,1,2-Tetrachloroethane	15.0U	20.0	6.20	15.0	ug/kg
1,1,1-Trichloroethane	18.8U	25.0	7.80	18.8	ug/kg
1,1,2,2-Tetrachloroethane	1.50U	2.00	0.620	1.50	ug/kg
1,1,2-Trichloroethane	0.750U	1.00	0.500	0.750	ug/kg
1,1-Dichloroethane	18.8U	25.0	7.80	18.8	ug/kg
1,1-Dichloroethene	18.8U	25.0	7.80	18.8	ug/kg
1,1-Dichloropropene	18.8U	25.0	7.80	18.8	ug/kg
1,2,3-Trichlorobenzene	75.0U	100	30.0	75.0	ug/kg
1,2,3-Trichloropropane	1.50U	2.00	0.620	1.50	ug/kg
1,2,4-Trichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
1,2,4-Trimethylbenzene	75.0U	100	30.0	75.0	ug/kg
1,2-Dibromo-3-chloropropane	75.0U	100	31.0	75.0	ug/kg
1,2-Dibromoethane	1.13U	1.50	0.750	1.13	ug/kg
1,2-Dichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
1,2-Dichloroethane	1.50U	2.00	0.700	1.50	ug/kg
1,2-Dichloropropane	7.50U	10.0	5.00	7.50	ug/kg
1,3,5-Trimethylbenzene	18.8U	25.0	7.80	18.8	ug/kg
1,3-Dichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
1,3-Dichloropropane	7.50U	10.0	3.10	7.50	ug/kg
1,4-Dichlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
2,2-Dichloropropane	18.8U	25.0	7.80	18.8	ug/kg
2-Butanone (MEK)	188U	250	78.0	188	ug/kg
2-Chlorotoluene	18.8U	25.0	7.80	18.8	ug/kg
2-Hexanone	90.0U	120	60.0	90.0	ug/kg
4-Chlorotoluene	15.0U	20.0	10.0	15.0	ug/kg
4-Isopropyltoluene	60.0U	80.0	40.0	60.0	ug/kg
4-Methyl-2-pentanone (MIBK)	188U	250	78.0	188	ug/kg
Acetone	188U	250	110	188	ug/kg
Benzene	9.38U	12.5	3.90	9.38	ug/kg
Bromobenzene	18.8U	25.0	7.80	18.8	ug/kg
Bromochloromethane	18.8U	25.0	7.80	18.8	ug/kg
Bromodichloromethane	1.50U	2.00	0.620	1.50	ug/kg
Bromoform	18.8U	25.0	7.80	18.8	ug/kg
Bromomethane	15.0U	20.0	8.00	15.0	ug/kg
Carbon disulfide	75.0U	100	31.0	75.0	ug/kg
Carbon tetrachloride	9.38U	12.5	3.90	9.38	ug/kg
Chlorobenzene	18.8U	25.0	7.80	18.8	ug/kg
Chloroethane	150U	200	62.0	150	ug/kg
Chloroform	4.50U	6.00	3.00	4.50	ug/kg
Chloromethane	18.8U	25.0	7.80	18.8	ug/kg
cis-1,2-Dichloroethene	18.8U	25.0	7.80	18.8	ug/kg
cis-1,3-Dichloropropene	9.38U	12.5	3.90	9.38	ug/kg

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Method Blank

Blank ID: MB for HBN 1902853 [VXX/42304]
Blank Lab ID: 1799017

Matrix: Soil/Solid (dry weight)

QC for Samples:
1246232004

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	LOD	Units
Dibromochloromethane	3.75U	5.00	1.50	3.75	ug/kg
Dibromomethane	18.8U	25.0	7.80	18.8	ug/kg
Dichlorodifluoromethane	75.0U	100	30.0	75.0	ug/kg
Ethylbenzene	18.8U	25.0	7.80	18.8	ug/kg
Freon-113	75.0U	100	31.0	75.0	ug/kg
Hexachlorobutadiene	15.0U	20.0	6.20	15.0	ug/kg
Isopropylbenzene (Cumene)	18.8U	25.0	7.80	18.8	ug/kg
Methylene chloride	75.0U	100	31.0	75.0	ug/kg
Methyl-t-butyl ether	75.0U	100	31.0	75.0	ug/kg
Naphthalene	18.8U	25.0	7.80	18.8	ug/kg
n-Butylbenzene	18.8U	25.0	7.80	18.8	ug/kg
n-Propylbenzene	18.8U	25.0	7.80	18.8	ug/kg
o-Xylene	18.8U	25.0	7.80	18.8	ug/kg
P & M -Xylene	37.5U	50.0	15.0	37.5	ug/kg
sec-Butylbenzene	18.8U	25.0	7.80	18.8	ug/kg
Styrene	18.8U	25.0	7.80	18.8	ug/kg
tert-Butylbenzene	18.8U	25.0	7.80	18.8	ug/kg
Tetrachloroethene	9.38U	12.5	3.90	9.38	ug/kg
Toluene	18.8U	25.0	7.80	18.8	ug/kg
trans-1,2-Dichloroethene	18.8U	25.0	7.80	18.8	ug/kg
trans-1,3-Dichloropropene	9.38U	12.5	3.90	9.38	ug/kg
Trichloroethene	7.50U	10.0	3.20	7.50	ug/kg
Trichlorofluoromethane	37.5U	50.0	15.0	37.5	ug/kg
Vinyl acetate	75.0U	100	31.0	75.0	ug/kg
Vinyl chloride	0.600U	0.800	0.250	0.600	ug/kg
Xylenes (total)	56.3U	75.0	22.8	56.3	ug/kg
Surrogates					
1,2-Dichloroethane-D4 (surr)	101	71-136		0	%
4-Bromofluorobenzene (surr)	96.8	55-151		0	%
Toluene-d8 (surr)	100	85-116		0	%

Batch Information

Analytical Batch: VMS23930
Analytical Method: SW8260D
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: CJG
Analytical Date/Time: 10/31/2024 12:21:00PM

Prep Batch: VXX42304
Prep Method: SW5035A
Prep Date/Time: 10/31/2024 6:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL

Print Date: 12/12/2024 10:13:12AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [VXX42304]
Blank Spike Lab ID: 1799018
Date Analyzed: 10/31/2024 12:37

Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232004

Results by **SW8260D**

Blank Spike (ug/kg)

Parameter	Spike	Result	Rec (%)	CL
1,1,1,2-Tetrachloroethane	750	770	103	(78-125)
1,1,1-Trichloroethane	750	816	109	(73-130)
1,1,2,2-Tetrachloroethane	750	794	106	(70-124)
1,1,2-Trichloroethane	750	777	104	(78-121)
1,1-Dichloroethane	750	787	105	(76-125)
1,1-Dichloroethene	750	885	118	(70-131)
1,1-Dichloropropene	750	818	109	(76-125)
1,2,3-Trichlorobenzene	750	708	94	(66-130)
1,2,3-Trichloropropane	750	757	101	(73-125)
1,2,4-Trichlorobenzene	750	755	101	(67-129)
1,2,4-Trimethylbenzene	750	796	106	(75-123)
1,2-Dibromo-3-chloropropane	750	691	92	(61-132)
1,2-Dibromoethane	750	768	102	(78-122)
1,2-Dichlorobenzene	750	746	100	(78-121)
1,2-Dichloroethane	750	753	100	(73-128)
1,2-Dichloropropane	750	795	106	(76-123)
1,3,5-Trimethylbenzene	750	796	106	(73-124)
1,3-Dichlorobenzene	750	765	102	(77-121)
1,3-Dichloropropane	750	762	102	(77-121)
1,4-Dichlorobenzene	750	768	102	(75-120)
2,2-Dichloropropane	750	856	114	(67-133)
2-Butanone (MEK)	2250	2330	104	(51-148)
2-Chlorotoluene	750	806	107	(75-122)
2-Hexanone	2250	2240	100	(53-145)
4-Chlorotoluene	750	779	104	(72-124)
4-Isopropyltoluene	750	798	106	(73-127)
4-Methyl-2-pentanone (MIBK)	2250	2180	97	(65-135)
Acetone	2250	2260	100	(36-164)
Benzene	750	793	106	(77-121)
Bromobenzene	750	832	111	(78-121)
Bromochloromethane	750	770	103	(78-125)
Bromodichloromethane	750	831	111	(75-127)
Bromoform	750	804	107	(67-132)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [VXX42304]
Blank Spike Lab ID: 1799018
Date Analyzed: 10/31/2024 12:37

Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232004

Results by **SW8260D**

Blank Spike (ug/kg)

Parameter	Spike	Result	Rec (%)	CL
Bromomethane	750	768	102	(53-143)
Carbon disulfide	1130	1400	124	(63-132)
Carbon tetrachloride	750	861	115	(70-135)
Chlorobenzene	750	781	104	(79-120)
Chloroethane	750	752	100	(59-139)
Chloroform	750	755	101	(78-123)
Chloromethane	750	723	96	(50-136)
cis-1,2-Dichloroethene	750	784	105	(77-123)
cis-1,3-Dichloropropene	750	833	111	(74-126)
Dibromochloromethane	750	819	109	(74-126)
Dibromomethane	750	786	105	(78-125)
Dichlorodifluoromethane	750	757	101	(29-149)
Ethylbenzene	750	766	102	(76-122)
Freon-113	1130	1280	114	(66-136)
Hexachlorobutadiene	750	913	122	(61-135)
Isopropylbenzene (Cumene)	750	763	102	(68-134)
Methylene chloride	750	840	112	(70-128)
Methyl-t-butyl ether	1130	1100	98	(73-125)
Naphthalene	750	633	84	(62-129)
n-Butylbenzene	750	817	109	(70-128)
n-Propylbenzene	750	815	109	(73-125)
o-Xylene	750	769	102	(77-123)
P & M -Xylene	1500	1510	101	(77-124)
sec-Butylbenzene	750	796	106	(73-126)
Styrene	750	764	102	(76-124)
tert-Butylbenzene	750	802	107	(73-125)
Tetrachloroethene	750	805	107	(73-128)
Toluene	750	772	103	(77-121)
trans-1,2-Dichloroethene	750	859	114	(74-125)
trans-1,3-Dichloropropene	750	816	109	(71-130)
Trichloroethene	750	811	108	(77-123)
Trichlorofluoromethane	750	809	108	(62-140)
Vinyl acetate	750	743	99	(50-151)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [VXX42304]
Blank Spike Lab ID: 1799018
Date Analyzed: 10/31/2024 12:37

Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232004

Results by **SW8260D**

Blank Spike (ug/kg)

Parameter	Spike	Result	Rec (%)	CL
Vinyl chloride	750	748	100	(56-135)
Xylenes (total)	2250	2280	101	(78-124)
Surrogates				
1,2-Dichloroethane-D4 (surr)	750		96	(71-136)
4-Bromofluorobenzene (surr)	750		97	(55-151)
Toluene-d8 (surr)	750		100	(85-116)

Batch Information

Analytical Batch: **VMS23930**
Analytical Method: **SW8260D**
Instrument: **VRA Agilent GC/MS 7890B/5977A**
Analyst: **CJG**

Prep Batch: **VXX42304**
Prep Method: **SW5035A**
Prep Date/Time: **10/31/2024 06:00**
Spike Init Wt./Vol.: 750 ug/kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1246222011
MS Sample ID: 1799020 MS
MSD Sample ID: 1799021 MSD

QC for Samples: 1246232004

Analysis Date: 10/31/2024 15:47
Analysis Date: 10/31/2024 13:40
Analysis Date: 10/31/2024 13:55
Matrix: Soil/Solid (dry weight)

Results by **SW8260D**

		Matrix Spike (ug/kg)			Spike Duplicate (ug/kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,2,4-Trimethylbenzene	125U	1260	1415	113	1260	1415	112	75-123	0.69	(< 20)
1,2-Dibromoethane	1.88U	1260	1367	108	1260	1344	106	78-122	2.10	(< 20)
1,2-Dichloroethane	2.51U	1260	1308	103	1260	1296	103	73-128	0.21	(< 20)
1,3,5-Trimethylbenzene	31.4U	1260	1427	113	1260	1427	113	73-124	0.35	(< 20)
Benzene	15.7U	1260	1332	106	1260	1356	107	77-121	1.40	(< 20)
Ethylbenzene	31.4U	1260	1332	105	1260	1308	104	76-122	1.70	(< 20)
Isopropylbenzene (Cumene)	31.4U	1260	1356	107	1260	1332	106	68-134	1.20	(< 20)
Methyl-t-butyl ether	125U	1891	1807	96	1891	1926	102	73-125	6.20	(< 20)
Naphthalene	31.4U	1260	1201	96	1260	1260	100	62-129	4.60	(< 20)
n-Butylbenzene	31.4U	1260	1486	118	1260	1463	116	70-128	1.80	(< 20)
n-Propylbenzene	31.4U	1260	1463	116	1260	1439	114	73-125	2.20	(< 20)
o-Xylene	31.4U	1260	1344	106	1260	1308	104	77-123	2.00	(< 20)
P & M -Xylene	62.8U	2521	2628	104	2521	2604	103	77-124	1.20	(< 20)
sec-Butylbenzene	31.4U	1260	1439	114	1260	1439	114	73-126	0.10	(< 20)
tert-Butylbenzene	31.4U	1260	1451	115	1260	1415	112	73-125	2.30	(< 20)
Toluene	31.4U	1260	1332	105	1260	1308	104	77-121	1.60	(< 20)
Xylenes (total)	94.5U	3781	3971	105	3781	3912	104	78-124	1.50	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		1260	1225	97	1260	1237	98	71-136	0.52	
4-Bromofluorobenzene (surr)		1629	2307	142	1629	2283	140	55-151	1.20	
Toluene-d8 (surr)		1260	1260	100	1260	1249	100	85-116	0.98	

Batch Information

Analytical Batch: VMS23930
Analytical Method: SW8260D
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: CJG
Analytical Date/Time: 10/31/2024 1:40:00PM

Prep Batch: VXX42304
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 10/31/2024 6:00:00AM
Prep Initial Wt./Vol.: 45.78g
Prep Extract Vol: 32.26mL

Print Date: 12/12/2024 10:13:17AM

Method Blank

Blank ID: MB for HBN 1902765 [XXX/50729]
Blank Lab ID: 1798670

Matrix: Soil/Solid (dry weight)

QC for Samples:
1246232001, 1246232002, 1246232003

Results by **AK102**

Parameter	Results	LOQ/CL	DL	LOD	Units
Diesel Range Organics	11.7J	20.0	9.00	15.0	mg/kg
Surrogates					
5a Androstane (surr)	85.8	60-120		0	%

Batch Information

Analytical Batch: XFC17107
Analytical Method: AK102
Instrument: Agilent 7890B F
Analyst: T.L
Analytical Date/Time: 11/13/2024 11:06:00PM

Prep Batch: XXX50729
Prep Method: SW3550C
Prep Date/Time: 10/31/2024 12:56:00PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [XXX50729]
Blank Spike Lab ID: 1798671
Date Analyzed: 11/13/2024 23:16

Spike Duplicate ID: LCSD for HBN 1246232 [XXX50729]
Spike Duplicate Lab ID: 1798672
Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **AK102**

	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	1110	961	87	1110	976	88	(75-125)	1.50	(< 20)
Surrogates									
5a Androstane (surr)	22.2		89	22.2		90	(60-120)	2.10	

Batch Information

Analytical Batch: **XFC17107**
Analytical Method: **AK102**
Instrument: **Agilent 7890B F**
Analyst: **T.L**

Prep Batch: **XXX50729**
Prep Method: **SW3550C**
Prep Date/Time: **10/31/2024 12:56**
Spike Init Wt./Vol.: 22.2 mg/kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: 22.2 mg/kg Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1902766 [XXX/50730]
Blank Lab ID: 1798673

Matrix: Soil/Solid (dry weight)

QC for Samples:
1246232001, 1246232002, 1246232003

Results by **8270E SIM (PAH)**

Parameter	Results	LOQ/CL	DL	LOD	Units
1-Methylnaphthalene	18.8U	25.0	6.25	18.8	ug/kg
2-Methylnaphthalene	18.8U	25.0	6.25	18.8	ug/kg
Acenaphthene	18.8U	25.0	6.25	18.8	ug/kg
Acenaphthylene	18.8U	25.0	6.25	18.8	ug/kg
Anthracene	18.8U	25.0	6.25	18.8	ug/kg
Benzo(a)Anthracene	18.8U	25.0	6.25	18.8	ug/kg
Benzo[a]pyrene	18.8U	25.0	6.25	18.8	ug/kg
Benzo[b]Fluoranthene	18.8U	25.0	6.25	18.8	ug/kg
Benzo[g,h,i]perylene	18.8U	25.0	6.25	18.8	ug/kg
Benzo[k]fluoranthene	18.8U	25.0	6.25	18.8	ug/kg
Chrysene	18.8U	25.0	6.25	18.8	ug/kg
Dibenzo[a,h]anthracene	18.8U	25.0	6.25	18.8	ug/kg
Fluoranthene	18.8U	25.0	6.25	18.8	ug/kg
Fluorene	18.8U	25.0	6.25	18.8	ug/kg
Indeno[1,2,3-c,d] pyrene	18.8U	25.0	6.25	18.8	ug/kg
Naphthalene	15.0U	20.0	5.00	15.0	ug/kg
Phenanthrene	18.8U	25.0	6.25	18.8	ug/kg
Pyrene	18.8U	25.0	6.25	18.8	ug/kg
Surrogates					
2-Methylnaphthalene-d10 (surr)	119	63-126		0	%
Fluoranthene-d10 (surr)	117	54-143		0	%

Batch Information

Analytical Batch: XMS14710
Analytical Method: 8270E SIM (PAH)
Instrument: Agilent 8890 GC/MS SYA
Analyst: HBL
Analytical Date/Time: 11/14/2024 10:22:00AM

Prep Batch: XXX50730
Prep Method: SW3550C
Prep Date/Time: 10/31/2024 12:56:00PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

Print Date: 12/12/2024 10:13:25AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1246232 [XXX50730]
Blank Spike Lab ID: 1798674
Date Analyzed: 11/14/2024 10:38

Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **8270E SIM (PAH)**

Blank Spike (ug/kg)

Parameter	Spike	Result	Rec (%)		CL
1-Methylnaphthalene	111	122	109		(43-111)
2-Methylnaphthalene	111	121	109		(39-114)
Acenaphthene	111	128	115	*	(44-111)
Acenaphthylene	111	128	116		(39-116)
Anthracene	111	121	109		(50-114)
Benzo(a)Anthracene	111	118	106		(54-122)
Benzo[a]pyrene	111	114	102		(50-125)
Benzo[b]Fluoranthene	111	127	115		(53-128)
Benzo[g,h,i]perylene	111	130	117		(49-127)
Benzo[k]fluoranthene	111	133	120		(56-123)
Chrysene	111	130	117		(57-118)
Dibenzo[a,h]anthracene	111	128	115		(50-129)
Fluoranthene	111	121	109		(55-119)
Fluorene	111	123	111		(47-114)
Indeno[1,2,3-c,d] pyrene	111	121	108		(49-130)
Naphthalene	111	126	113	*	(38-111)
Phenanthrene	111	124	112		(49-113)
Pyrene	111	122	110		(55-117)
Surrogates					
2-Methylnaphthalene-d10 (surr)	111		126		(63-126)
Fluoranthene-d10 (surr)	111		116		(54-143)

Batch Information

Analytical Batch: **XMS14710**
Analytical Method: **8270E SIM (PAH)**
Instrument: **Agilent 8890 GC/MS SYA**
Analyst: **HBL**

Prep Batch: **XXX50730**
Prep Method: **SW3550C**
Prep Date/Time: **10/31/2024 12:56**
Spike Init Wt./Vol.: 111 ug/kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Matrix Spike Summary

Original Sample ID: 1246232003
MS Sample ID: 1798675 MS
MSD Sample ID: 1798676 MSD

Analysis Date: 11/18/2024 18:35
Analysis Date: 11/18/2024 18:51
Analysis Date: 11/18/2024 19:07
Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **8270E SIM (PAH)**

		Matrix Spike (ug/kg)				Spike Duplicate (ug/kg)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
1-Methylnaphthalene	10300	128	10188	-116	*	128	11116	611	*	43-111	8.70	(< 20)
2-Methylnaphthalene	14000	128	13514	-433	*	128	14806	572	*	39-114	9.10	(< 20)
Acenaphthene	147	128	156	7	*	128	140	-5	*	44-111	10.80	(< 20)
Acenaphthylene	241	128	244	3	*	128	260	15	*	39-116	6.10	(< 20)
Anthracene	42.0	128	112	55		128	103	47	*	50-114	9.30	(< 20)
Benzo(a)Anthracene	29.0U	128	129	101		128	115	90		54-122	11.30	(< 20)
Benzo[a]pyrene	29.0U	128	133	104		128	119	93		50-125	11.40	(< 20)
Benzo[b]Fluoranthene	29.0U	128	139	108		128	123	97		53-128	11.20	(< 20)
Benzo[g,h,i]perylene	29.0U	128	139	108		128	127	99		49-127	9.00	(< 20)
Benzo[k]fluoranthene	29.0U	128	140	110		128	128	100		56-123	9.10	(< 20)
Chrysene	29.0U	128	135	105		128	123	97		57-118	8.20	(< 20)
Dibenzo[a,h]anthracene	29.0U	128	137	108		128	125	98		50-129	10.20	(< 20)
Fluoranthene	29.0U	128	136	106		128	123	96		55-119	10.00	(< 20)
Fluorene	408	128	488	63		128	558	118	*	47-114	13.40	(< 20)
Indeno[1,2,3-c,d] pyrene	29.0U	128	128	100		128	115	90		49-130	10.30	(< 20)
Naphthalene	8090	128	8155	49		128	9048	746	*	38-111	10.40	(< 20)
Phenanthrene	353	128	437	66		128	438	68		49-113	0.28	(< 20)
Pyrene	29.0U	128	148	116		128	136	107		55-117	8.40	(< 20)
Surrogates												
2-Methylnaphthalene-d10 (surr)		128	112	87		128	84.5	66		63-126	27.90	
Fluoranthene-d10 (surr)		128	142	111		128	127	99		54-143	11.80	

Print Date: 12/12/2024 10:13:29AM

Matrix Spike Summary

Original Sample ID: 1246232003
MS Sample ID: 1798675 MS
MSD Sample ID: 1798676 MSD

Analysis Date:
Analysis Date: 11/14/2024 11:43
Analysis Date: 11/14/2024 11:59
Matrix: Soil/Solid (dry weight)

QC for Samples: 1246232001, 1246232002, 1246232003

Results by **8270E SIM (PAH)**

		Matrix Spike (%)			Spike Duplicate (%)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: XMS14710
Analytical Method: 8270E SIM (PAH)
Instrument: Agilent 8890 GC/MS SYA
Analyst: HBL
Analytical Date/Time: 11/14/2024 11:43:00AM

Prep Batch: XXX50730
Prep Method: Sonication Extr Soil 8270 PAH SIM 5ml
Prep Date/Time: 10/31/2024 12:56:00PM
Prep Initial Wt./Vol.: 22.94g
Prep Extract Vol: 5.00mL

Analytical Batch: XMS14737
Analytical Method: 8270E SIM (PAH)
Instrument: Agilent 8890 GC/MS SYA
Analyst: C.M
Analytical Date/Time: 11/18/2024 6:51:00PM

Prep Batch: XXX50730
Prep Method: Sonication Extr Soil 8270 PAH SIM 5ml
Prep Date/Time: 10/31/2024 12:56:00PM
Prep Initial Wt./Vol.: 22.94g
Prep Extract Vol: 5.00mL

Analytical Batch: XMS14741
Analytical Method: 8270E SIM (PAH)
Instrument: Agilent 8890 GC/MS SYA
Analyst: C.M
Analytical Date/Time: 12/6/2024 1:30:00PM

Prep Batch: XXX50730
Prep Method: Sonication Extr Soil 8270 PAH SIM 5ml
Prep Date/Time: 10/31/2024 12:56:00PM
Prep Initial Wt./Vol.: 22.94g
Prep Extract Vol: 5.00mL

Print Date: 12/12/2024 10:13:29AM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Corrected Report - Revision 1

1246232

Profile #: 338622 Int.: JM

Page 1 of 1

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: Alta GeoScience	
CONTACT: Alex Tula	PHONE #: 206-979-8282
PROJECT NAME: Soldotna AT&T	Project/Permit Number: NPDL Number(DOD):
REPORTS TO: Alex Tula	E-MAIL: ATula@Altageo.com
INVOICE TO: Alex Tula	QUOTE #: P.O. #:

Section 2

Section 3 — Preservative

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Sample Type (Comp / Grab / MI)	Analysis* VOC (MeOH)	DRO+PAHSim (none)	Volatile Petroleum Hydrocarbons (MeOH)	Extractable Petroleum Hydrocarbons (none)	REMARKS/LOC ID
1AD	14-2024	10/22/24	1215	Soil	4	G	1	1	1	1	
2AD	28-2024	10/22/24	1115	Soil	4	G	1	1	1	1	
3AD	Duplicate	10/22/24	0800	Soil	4	G	1	1	1	1	
4AD	Trip Blank	10/22/24	0730	Soil	1	G	1				

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Comments: Volatile & Extractable Petroleum Hydrocarbons by Washington State Department of Ecology methods

Section 4

DOD Project? YES NO

Data Deliverables Requested

DataView SEDD EQUIS

Level 4 ERPIMS Other:_____

Turnaround Time Requested

(Standard) Rush

Requested Rush Report Date:_____

SGS Sample Receipt (Lab Use Only)

Delivery Method: Client (Commercial)

Did each cooler have a corresponding COC? (Yes) No

Chain of Custody Seal Condition: (INTACT) BROKEN ABSENT

COC Seal Location(s): IFIB

Section 5

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	10/25/24	0700	
	10/25/24	1112	

Laboratory Use Only

Cooler ID	Temperature (°C)	Therm. ID
1. (Anc)	2.2	D50
2.		
3.		

If more than three coolers are received, or for documentation of non-compliant coolers, use form FS-0029.

Note: If temp. is outside 0-6° and samples were not taken <8 hours ago OR are waste samples, Client or PM should initial here or attach an email change order to proceed with analysis. If ice is present, note on form F102B.

Intials:_____

1246232

SGS

SAMPLE RECEIPT FORM

Project Manager Completion				
Was all necessary information recorded on the COC upon receipt? (Temperature, COC seals, etc.?)	Yes	No	N/A	
Was temperature between 0-6° C?	Yes	No	N/A	If "No", are the samples either exempt* or sampled <8 hours prior to receipt?
Were all analyses received within holding time*?	Yes	No	N/A	
Was a method specified for each analysis, where applicable? If no, please note correct methods.	Yes	No	N/A	
Are compound lists specified, where applicable? For project specific or special compound lists please note correct analysis code.	Yes	No	N/A	
If rush was requested by the client, was the requested TAT approved?	Yes	No	N/A	If "NO", what is the approved TAT?
If SEDD Deliverables are required, were Location ID's and an NPDL Number provided?	Yes	No	N/A	*If "NO", contact client for information.*
Sample Login Completion				
Do ID's on sample containers match COC?	Yes	No	N/A	
If provided on containers, do dates/times collected match COC?	Yes	No	N/A	Note: If times differ <1 hr., record details below and login per COC.
Were all sample containers received in good condition?	Yes	No	N/A	
Were proper containers (type/mass/volume/preservative) received for all samples? **See form F-083 "Sample Guide"*	Yes	No	N/A	*Note: If 200.8/6020 Total Metals are received unpreserved, preserve, and note HNO3 lot here: If 200.8/6020 Dissolved Metals are received unpreserved, log in for LABFILTER and do not preserve. For all non-metals methods, inform Project Manager.*
Were Trip Blanks (VOC, GRO, Low-Level Hg, etc.) received with samples, where applicable*?	Yes	No	N/A	
Were all VOA vials free of headspace >6mm?	Yes	No	N/A	
Were all soil VOA samples received field extracted with Methanol?	Yes	No	N/A	
Did all soil VOA samples have an accompanying unpreserved container for % solids?	Yes	No	N/A	
If special handling is required, were containers labelled appropriately? e.g. MI/ISM, foreign soils, lab filter, Ref Lab, limited volume	Yes	No	N/A	RL
For Rush/Short Holding time, was the lab notified?	Yes	No	N/A	
For any question answered "NO", was the Project Manager notified?	Yes	No	N/A	PM Initials:
Was Peer Review of sample numbering/labelling completed?	Yes	No	N/A	Reviewer Initials:
Additional Notes/Clarification where Applicable, including resolution of "No" answers when a change order is not attached:				

1246232

AIRBILL 14640907

I hereby declare that the goods contained herein do not contain dangerous goods.

Signed..... Date .....

Grant Aviation
420 Kulis Dr. Anchorage, AK 99502
Phone: 1 (888) 359-4726
Freephone: 1 (888) 359-4726
Email: res@flygrant.com
Web: http://www.flygrant.com/

FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Receiver: SGS Alaska
907-562-2343

Sender: Jeremy Yancey
907-252-8366

Flight Departs: Oct 25 24 8:55 AM
Accepted: Fri, Oct 25 24 8:23:00 AM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Standard Freight	1	34	-	-	$28.24
				Total Tax:	$1.76
				Total Payments made:	$30.00
				Total Unpaid:	**$0.00**

Received in good condition by: .....

CUSTOMER COPY

AIRBILL 14640907

I hereby declare that the goods contained herein do not contain dangerous goods.

Signed..... Date .....

Grant Aviation
6420 Kulis Dr. Anchorage, AK 99502
Phone: 1 (888) 359-4726
Freephone: 1 (888) 359-4726
Email: res@flygrant.com
Web: http://www.flygrant.com/

FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Receiver: SGS Alaska
907-562-2343

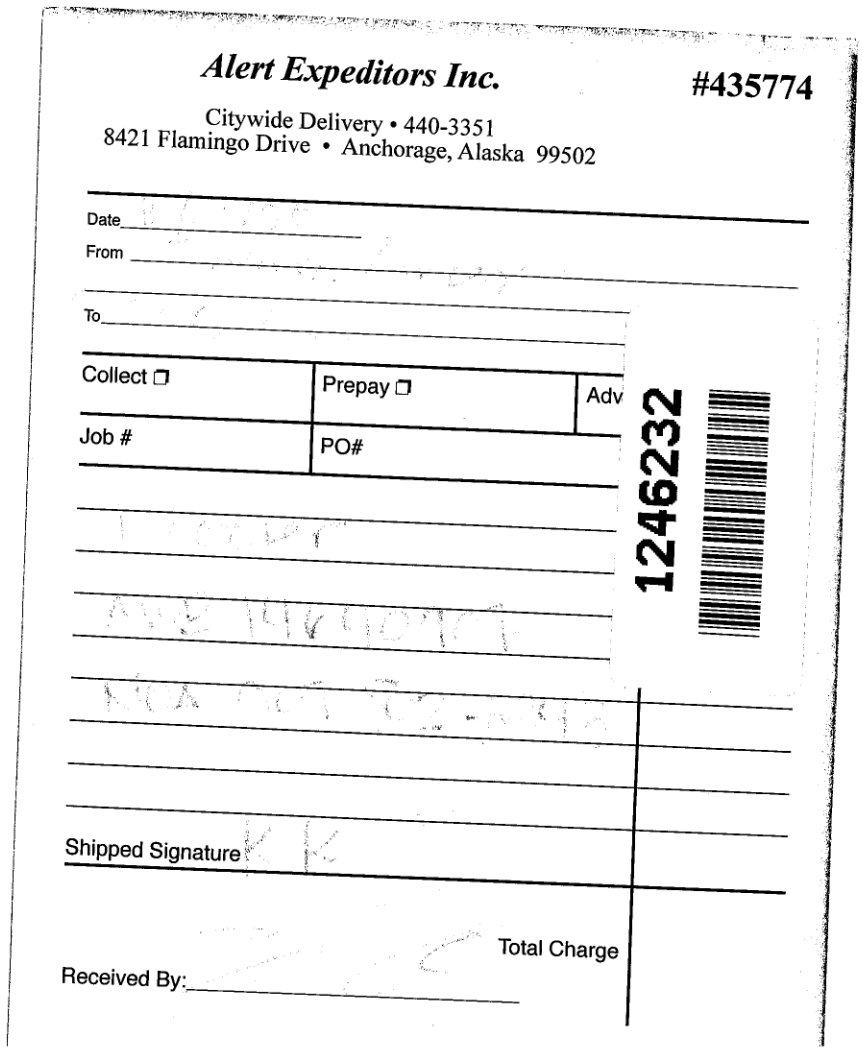
Sender: Jeremy Yancey
907-252-8366

Flight Departs: Oct 25 24 8:55 AM
Accepted: Fri, Oct 25 24 8:23:00 AM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Standard Freight	1	34	-	-	$28.24
TAX: Federal Excise Tax					$1.76
				Total Payments made:	$30.00
				Total Unpaid:	**$0.00**

TERMS AND CONDITIONS

Consignemnt Note Text



Alert Expeditors Inc. **#435774**

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date

From

To

Collect ❒	Prepay ❒	Adv
Job #	PO#	

1246232

Shipped Signature

Total Charge

Received By:

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1246232001-A	No Preservative Required	OK			
1246232001-B	Methanol field pres. 4 C	OK			
1246232001-C	No Preservative Required	OK			
1246232001-D	Methanol field pres. 4 C	OK			
1246232002-A	No Preservative Required	OK			
1246232002-B	Methanol field pres. 4 C	OK			
1246232002-C	No Preservative Required	OK			
1246232002-D	Methanol field pres. 4 C	OK			
1246232003-A	No Preservative Required	OK			
1246232003-B	Methanol field pres. 4 C	OK			
1246232003-C	No Preservative Required	OK			
1246232003-D	Methanol field pres. 4 C	OK			
1246232004-A	Methanol field pres. 4 C	OK			

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

23 November 2024

Justin Nelson
SGS Environmental Services, Inc.
200 W. Potter Drive
Anchorage, AK 99518

RE: 1246232

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
24J0633	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Shelly Fishel, Project Manager

Cert# 100006-012

24J0633

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
Corrected Report - Revision 1

Alaska	Florida
New Jersey	Colorado
Texas	North Carolina
Virginia	Louisiana

www.us.sgs.com

CLIENT:	SGS North America Inc. - Alaska Division	SGS Reference:	ARI LABS TUKWILA WA
CONTACT:	Justin Nelson	PHONE NO:	(907) 562-2343
PROJECT NAME:	1246232	PWSID#:	
		NPDL#:	
REPORTS TO:	Justin.Nelson	E-MAIL:	Justin.Nelson@sgs.com; Env.Alaska.RefLabTeam@sgs.com
INVOICE TO:	SGS - Alaska; env.alaska.accounting@sgs.com	QUOTE #:	
		P.O. #:	1246232

Additional Comments: All soils report out in dry weight unless

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	# CONTAINERS	Preservative Used:	Non-Field Preservation	NONE			MS	MSD	SGS lab #	Location ID
						TYPE C = COMP G = GRAB MI = Multi Incremental Soils	WA DOE - VPH	WA DOE - EPH						
	14-2024	10/22/2024	12:15:00	SO	2		X	X					1246232001	
	28-2024	10/22/2024	11:15:00	SO	2		X	X					1246232002	
	Duplicate	10/22/2024	08:00:00	SO	2		X	X					1246232003	

Relinquished By: (1)	Date 10/25/24	Time 1233	Received By:	10/30/24 0958	DOD Project? NO; Report to DL (J Flags)? If J- Report as DL/LOD/LOQ. YES; Data Deliverable Requirements: Level 2
Relinquished By: (2)	Date	Time	Received By:		Cooler ID:
Relinquished By: (3)	Date	Time	Received By:		Requested Turnaround Time and-or Special Instructions:
Relinquished By: (4)	Date	Time	Received For Laboratory By:		Temp Blank °C: _____ or Ambient [ ]; Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

CSN

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
14-2024	24J0633-01	Solid	22-Oct-2024 12:15	30-Oct-2024 09:58
28-2024	24J0633-02	Solid	22-Oct-2024 11:15	30-Oct-2024 09:58
Duplicate	24J0633-03	Solid	22-Oct-2024 08:00	30-Oct-2024 09:58

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Work Order Case Narrative

Client: SGS Environmental Services, Inc.
Project: 1246232
Work Order: 24J0633

Sample receipt

Sample(s) as listed on the preceding page were received 30-Oct-2024 09:58 under ARI work order 24J0633. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Extractable Organic Hydrocarbons - WA-Ecology

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Volatile Petroleum Hydrocarbons - WA-Ecology VPH

The sample(s) were analyzed within the recommended holding times.

Samples were diluted due to the fuel odor noted.

Initial weight was not on the jar for 24J0633-02. Jar was emptied, cleaned, and baked dry to determine the initial weight in order to calculate sample weight. Sample weight is approximate due to inherent inaccuracy in the process.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Note that per the method, the C12-C13 Aromatic range for the VPH should only be used for evaluating samples when VPH is analyzed without an accompanying EPH method request.

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Corrected Report - Revision 1

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: SGS N.A. Project Name: 1246232

COC No(s): _____ NA Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 24J0633 Tracking No: 020141841975246 5 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 1.6 w

Time 0955

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 50097708

Cooler Accepted by: _____ Date: 10/30/24 Time: 0958

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____		
Was sufficient ice used (if appropriate)?	NA	YES	NO
How were bottles sealed in plastic bags?	Individually	Grouped	Not
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SA Date: 10/30/24 Time: 1104 Labels checked by: SA

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

14-2024

24J0633-01 (Solid)

Washington Department of Ecology Methods

Method: WA EPH — Sampled: 10/22/2024 12:15

Instrument: FID8 Analyst: NRB — Analyzed: 11/18/2024 13:38

Sample Preparation: Preparation Method: EPA 3546 (Microwave) — Extract ID: 24J0633-01 B 02

Preparation Batch: BMK0061 — Sample Size: 10 g (wet) — Dry Weight:8.64 g

Prepared: 11/05/2024 — Final Volume: 1 mL — % Solids: 86.43

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C8-C10 Aliphatics	ALI-C8-C10	1	2310	109000	ug/kg	
>C10-C12 Aliphatics	ALI->C10-C12	1	2310	864000	ug/kg	
>C12-C16 Aliphatics	ALI->C12-C16	1	2310	1910000	ug/kg	
>C16-C21 Aliphatics	ALI->C16-C21	1	2310	447000	ug/kg	
>C21-C34 Aliphatics	ALI->C21-C34	1	2310	27600	ug/kg	
Surrogate: 1-Chloro-octadecane			*30-160 %*	*74.2*	*%*	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C8-C10 Aromatics	ARO-C8-C10	1	2310	12600	ug/kg	
>C10-C12 Aromatics	ARO->C10-C12	1	2310	74400	ug/kg	
>C12-C16 Aromatics	ARO->C12-C16	1	2310	278000	ug/kg	
>C16-C21 Aromatics	ARO->C16-C21	1	2310	178000	ug/kg	
>C21-C34 Aromatics	ARO->C21-C34	1	2310	6990	ug/kg	
Surrogate: o-Terphenyl			*30-160 %*	*112*	*%*	

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

14-2024

24J0633-01 (Solid)

Washington Department of Ecology Methods

Method: WA VPH — Sampled: 10/22/2024 12:15

Instrument: PID1 Analyst: PKC — Analyzed: 10/31/2024 17:35

Sample Preparation: Preparation Method: EPA 5035 (Methanol Extraction) — Extract ID: 24J0633-01 A

Preparation Batch: BMJ0763 — Sample Size: 47.565 g (wet) — Dry Weight:41.11 g

Prepared: 10/31/2024 — Final Volume: 25 mL — % Solids: 86.43

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C5-C6 Aliphatics	ALI-C5-C6	900	34400	ND	ug/kg	U
>C6-C8 Aliphatics	ALI->C6-C8	900	34400	ND	ug/kg	U
>C8-C10 Aliphatics	ALI->C8-C10	900	34400	ND	ug/kg	U
>C10-C12 Aliphatics	ALI->C10-C12	900	34400	450000	ug/kg	D
C8-C10 Aromatics	ARO-C8-C10	900	34400	261000	ug/kg	D
>C10-C12 Aromatics	ARO->C10-C12	900	34400	561000	ug/kg	D
>C12-C13 Aromatics	ARO->C12-C13	900	34400	463000	ug/kg	D
Methyl tert-butyl Ether	1634-04-4	900	3440	ND	ug/kg	U
Benzene	71-43-2	900	3440	ND	ug/kg	U
Toluene	108-88-3	900	3440	ND	ug/kg	U
Ethylbenzene	100-41-4	900	3440	4060	ug/kg	D
m,p-Xylene	179601-23-1	900	6890	ND	ug/kg	U
o-Xylene	95-47-6	900	3440	4820	ug/kg	D
1,2,3-Trimethylbenzene	526-73-8	900	3440	26600	ug/kg	D
Naphthalene	91-20-3	900	3440	31800	ug/kg	D
1-Methylnaphthalene	90-12-0	900	3440	41200	ug/kg	D
n-Pentane	109-66-0	900	3440	ND	ug/kg	U
n-Hexane	110-54-3	900	3440	ND	ug/kg	U
n-Octane	111-65-9	900	3440	ND	ug/kg	U
n-Decane	124-18-5	900	3440	40600	ug/kg	D
n-Dodecane	112-40-3	900	3440	85500	ug/kg	D
Surrogate: PID: 2,5-Dibromotoluene			*60-140 %*	*98.7*	*%*	
Surrogate: FID: 2,5-Dibromotoluene			*60-140 %*	*104*	*%*	

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

28-2024

24J0633-02 (Solid)

Washington Department of Ecology Methods

Method: WA EPH — Sampled: 10/22/2024 11:15

Instrument: FID8 Analyst: NRB — Analyzed: 11/18/2024 14:03

Sample Preparation: Preparation Method: EPA 3546 (Microwave) — Extract ID: 24J0633-02 B 02

Preparation Batch: BMK0061 — Sample Size: 10 g (wet) — Dry Weight:8.51 g

Prepared: 11/05/2024 — Final Volume: 1 mL — % Solids: 85.13

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C8-C10 Aliphatics	ALI-C8-C10	1	2350	91800	ug/kg	
>C10-C12 Aliphatics	ALI->C10-C12	1	2350	295000	ug/kg	
>C12-C16 Aliphatics	ALI->C12-C16	1	2350	892000	ug/kg	
>C16-C21 Aliphatics	ALI->C16-C21	1	2350	583000	ug/kg	
>C21-C34 Aliphatics	ALI->C21-C34	1	2350	36700	ug/kg	
Surrogate: 1-Chloro-octadecane			*30-160 %*	*68.2*	*%*	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C8-C10 Aromatics	ARO-C8-C10	1	2350	9010	ug/kg	
>C10-C12 Aromatics	ARO->C10-C12	1	2350	24400	ug/kg	
>C12-C16 Aromatics	ARO->C12-C16	1	2350	105000	ug/kg	
>C16-C21 Aromatics	ARO->C16-C21	1	2350	169000	ug/kg	
>C21-C34 Aromatics	ARO->C21-C34	1	2350	7760	ug/kg	
Surrogate: o-Terphenyl			*30-160 %*	*104*	*%*	

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

28-2024

24J0633-02 (Solid)

Washington Department of Ecology Methods

Method: WA VPH — Sampled: 10/22/2024 11:15

Instrument: PID1 Analyst: PKC — Analyzed: 10/31/2024 18:06

Sample Preparation: Preparation Method: EPA 5035 (Methanol Extraction) — Extract ID: 24J0633-02 A

Preparation Batch: BMJ0763 — Sample Size: 49.945 g (wet) — Dry Weight:42.52 g

Prepared: 10/31/2024 — Final Volume: 25 mL — % Solids: 85.13

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C5-C6 Aliphatics	ALI-C5-C6	900	34300	ND	ug/kg	U
>C6-C8 Aliphatics	ALI->C6-C8	900	34300	ND	ug/kg	U
>C8-C10 Aliphatics	ALI->C8-C10	900	34300	ND	ug/kg	U
>C10-C12 Aliphatics	ALI->C10-C12	900	34300	220000	ug/kg	D
C8-C10 Aromatics	ARO-C8-C10	900	34300	103000	ug/kg	D
>C10-C12 Aromatics	ARO->C10-C12	900	34300	131000	ug/kg	D
>C12-C13 Aromatics	ARO->C12-C13	900	34300	95500	ug/kg	D
Methyl tert-butyl Ether	1634-04-4	900	3430	ND	ug/kg	U
Benzene	71-43-2	900	3430	ND	ug/kg	U
Toluene	108-88-3	900	3430	ND	ug/kg	U
Ethylbenzene	100-41-4	900	3430	ND	ug/kg	U
m,p-Xylene	179601-23-1	900	6860	ND	ug/kg	U
o-Xylene	95-47-6	900	3430	ND	ug/kg	U
1,2,3-Trimethylbenzene	526-73-8	900	3430	6040	ug/kg	D
Naphthalene	91-20-3	900	3430	6450	ug/kg	D
1-Methylnaphthalene	90-12-0	900	3430	9950	ug/kg	D
n-Pentane	109-66-0	900	3430	ND	ug/kg	U
n-Hexane	110-54-3	900	3430	ND	ug/kg	U
n-Octane	111-65-9	900	3430	ND	ug/kg	U
n-Decane	124-18-5	900	3430	16800	ug/kg	D
n-Dodecane	112-40-3	900	3430	22700	ug/kg	D
Surrogate: PID: 2,5-Dibromotoluene			*60-140 %*	*86.2*	*%*	
Surrogate: FID: 2,5-Dibromotoluene			*60-140 %*	*93.9*	*%*	

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Duplicate

24J0633-03 (Solid)

Washington Department of Ecology Methods

Method: WA EPH — Sampled: 10/22/2024 08:00
Instrument: FID8 Analyst: NRB — Analyzed: 11/18/2024 14:28

Sample Preparation: Preparation Method: EPA 3546 (Microwave) — Extract ID: 24J0633-03 B 02
Preparation Batch: BMK0061 — Sample Size: 10 g (wet) — Dry Weight:8.56 g
Prepared: 11/05/2024 — Final Volume: 1 mL — % Solids: 85.56

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C8-C10 Aliphatics	ALI-C8-C10	1	2340	108000	ug/kg	
>C10-C12 Aliphatics	ALI->C10-C12	1	2340	792000	ug/kg	
>C12-C16 Aliphatics	ALI->C12-C16	1	2340	1800000	ug/kg	
>C16-C21 Aliphatics	ALI->C16-C21	1	2340	455000	ug/kg	
>C21-C34 Aliphatics	ALI->C21-C34	1	2340	29200	ug/kg	
Surrogate: 1-Chloro-octadecane			*30-160 %*	*72.5*	*%*	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C8-C10 Aromatics	ARO-C8-C10	1	2340	11500	ug/kg	
>C10-C12 Aromatics	ARO->C10-C12	1	2340	65800	ug/kg	
>C12-C16 Aromatics	ARO->C12-C16	1	2340	246000	ug/kg	
>C16-C21 Aromatics	ARO->C16-C21	1	2340	167000	ug/kg	
>C21-C34 Aromatics	ARO->C21-C34	1	2340	7160	ug/kg	
Surrogate: o-Terphenyl			*30-160 %*	*106*	*%*	

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Duplicate

24J0633-03 (Solid)

Washington Department of Ecology Methods

Method: WA VPH — Sampled: 10/22/2024 08:00
Instrument: PID1 Analyst: PKC — Analyzed: 10/31/2024 18:36

Sample Preparation: Preparation Method: EPA 5035 (Methanol Extraction) — Extract ID: 24J0633-03 A
Preparation Batch: BMJ0763 — Sample Size: 53.075 g (wet) — Dry Weight:45.41 g
Prepared: 10/31/2024 — Final Volume: 25 mL — % Solids: 85.56

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
C5-C6 Aliphatics	ALI-C5-C6	900	32400	ND	ug/kg	U
>C6-C8 Aliphatics	ALI->C6-C8	900	32400	ND	ug/kg	U
>C8-C10 Aliphatics	ALI->C8-C10	900	32400	ND	ug/kg	U
>C10-C12 Aliphatics	ALI->C10-C12	900	32400	278000	ug/kg	D
C8-C10 Aromatics	ARO-C8-C10	900	32400	142000	ug/kg	D
>C10-C12 Aromatics	ARO->C10-C12	900	32400	308000	ug/kg	D
>C12-C13 Aromatics	ARO->C12-C13	900	32400	267000	ug/kg	D
Methyl tert-butyl Ether	1634-04-4	900	3240	ND	ug/kg	U
Benzene	71-43-2	900	3240	ND	ug/kg	U
Toluene	108-88-3	900	3240	ND	ug/kg	U
Ethylbenzene	100-41-4	900	3240	ND	ug/kg	U
m,p-Xylene	179601-23-1	900	6470	ND	ug/kg	U
o-Xylene	95-47-6	900	3240	ND	ug/kg	U
1,2,3-Trimethylbenzene	526-73-8	900	3240	15400	ug/kg	D
Naphthalene	91-20-3	900	3240	20300	ug/kg	D
1-Methylnaphthalene	90-12-0	900	3240	27100	ug/kg	D
n-Pentane	109-66-0	900	3240	ND	ug/kg	U
n-Hexane	110-54-3	900	3240	ND	ug/kg	U
n-Octane	111-65-9	900	3240	ND	ug/kg	U
n-Decane	124-18-5	900	3240	20300	ug/kg	D
n-Dodecane	112-40-3	900	3240	27300	ug/kg	D
Surrogate: PID: 2,5-Dibromotoluene			*60-140 %*	*91.9*	*%*	
Surrogate: FID: 2,5-Dibromotoluene			*60-140 %*	*99.4*	*%*	

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMJ0763 - WA VPH

Instrument: PID1 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMJ0763-BLK1)			Prepared: 31-Oct-2024 Analyzed: 31-Oct-2024 17:05							
C5-C6 Aliphatics	ND	9000	ug/kg							U
>C6-C8 Aliphatics	ND	9000	ug/kg							U
>C8-C10 Aliphatics	ND	9000	ug/kg							U
>C10-C12 Aliphatics	ND	9000	ug/kg							U
C8-C10 Aromatics	ND	9000	ug/kg							U
>C10-C12 Aromatics	ND	9000	ug/kg							U
>C12-C13 Aromatics	ND	9000	ug/kg							U
Methyl tert-butyl Ether	ND	900	ug/kg							U
Benzene	ND	900	ug/kg							U
Toluene	ND	900	ug/kg							U
Ethylbenzene	ND	900	ug/kg							U
m,p-Xylene	ND	1800	ug/kg							U
o-Xylene	ND	900	ug/kg							U
1,2,3-Trimethylbenzene	ND	900	ug/kg							U
Naphthalene	ND	900	ug/kg							U
1-Methylnaphthalene	ND	900	ug/kg							U
n-Pentane	ND	900	ug/kg							U
n-Hexane	ND	900	ug/kg							U
n-Octane	ND	900	ug/kg							U
n-Decane	ND	900	ug/kg							U
n-Dodecane	ND	900	ug/kg							U
Surrogate: PID: 2,5-Dibromotoluene	67.4		ug/kg	*100*		*67.4*	*60-140*			
Surrogate: FID: 2,5-Dibromotoluene	70.7		ug/kg	*100*		*70.7*	*60-140*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMJ0763 - WA VPH

Instrument: PID1 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BMJ0763-BS1)				Prepared: 31-Oct-2024 Analyzed: 31-Oct-2024 16:04						
Methyl tert-butyl Ether	8460	900	ug/kg	9000		94.0	70-135			
Benzene	7970	900	ug/kg	9000		88.6	69-138			
Toluene	7990	900	ug/kg	9000		88.8	62-150			
Ethylbenzene	7810	900	ug/kg	9000		86.8	70-130			
m,p-Xylene	14700	1800	ug/kg	18000		81.5	61-142			
o-Xylene	7790	900	ug/kg	9000		86.6	70-130			
1,2,3-Trimethylbenzene	8350	900	ug/kg	9000		92.8	70-130			
Naphthalene	8390	900	ug/kg	9000		93.2	70-130			
1-Methylnaphthalene	7220	900	ug/kg	9000		80.2	70-130			
n-Pentane	7070	900	ug/kg	9000		78.6	54-131			
n-Hexane	7020	900	ug/kg	9000		78.0	70-130			
n-Octane	6460	900	ug/kg	9000		71.8	52-120			
n-Decane	6390	900	ug/kg	9000		71.0	52-120			
n-Dodecane	7430	900	ug/kg	9000		82.6	62-138			
Surrogate: PID: 2,5-Dibromotoluene	76.8		ug/kg	*100*		*76.8*	*60-140*			
Surrogate: FID: 2,5-Dibromotoluene	82.8		ug/kg	*100*		*82.8*	*60-140*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMJ0763 - WA VPH

Instrument: PID1 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BMJ0763-BSD1)				Prepared: 31-Oct-2024 Analyzed: 31-Oct-2024 16:34						
Methyl tert-butyl Ether	8620	900	ug/kg	9000		95.8	70-135	1.90	30	
Benzene	8050	900	ug/kg	9000		89.4	69-138	0.90	30	
Toluene	7940	900	ug/kg	9000		88.2	62-150	0.68	30	
Ethylbenzene	7720	900	ug/kg	9000		85.8	70-130	1.16	30	
m,p-Xylene	14500	1800	ug/kg	18000		80.7	61-142	0.99	30	
o-Xylene	7740	900	ug/kg	9000		86.0	70-130	0.70	30	
1,2,3-Trimethylbenzene	8350	900	ug/kg	9000		92.8	70-130	0.00	30	
Naphthalene	8680	900	ug/kg	9000		96.4	70-130	3.38	30	
1-Methylnaphthalene	7200	900	ug/kg	9000		80.0	70-130	0.25	30	
n-Pentane	6950	900	ug/kg	9000		77.2	54-131	1.80	30	
n-Hexane	6750	900	ug/kg	9000		75.0	70-130	3.92	30	
n-Octane	6050	900	ug/kg	9000		67.2	52-120	6.62	30	
n-Decane	6350	900	ug/kg	9000		70.6	52-120	0.57	30	
n-Dodecane	7330	900	ug/kg	9000		81.4	62-138	1.46	30	
Surrogate: PID: 2,5-Dibromotoluene	78.8		ug/kg	*100*		*78.8*	*60-140*			
Surrogate: FID: 2,5-Dibromotoluene	84.5		ug/kg	*100*		*84.5*	*60-140*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Washington Department of Ecology Methods - Quality Control

Batch BMK0061 - WA EPH

Instrument: FID8 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMK0061-BLK1)			Prepared: 05-Nov-2024 Analyzed: 18-Nov-2024 12:24							
C8-C10 Aliphatics	ND	2000	ug/kg							U
>C10-C12 Aliphatics	ND	2000	ug/kg							U
>C12-C16 Aliphatics	ND	2000	ug/kg							U
>C16-C21 Aliphatics	ND	2000	ug/kg							U
>C21-C34 Aliphatics	ND	2000	ug/kg							U
Surrogate: 1-Chloro-octadecane	10100		ug/kg	*15000*		*67.1*	*30-160*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMK0061 - WA EPH

Instrument: FID8 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMK0061-BLK2)			Prepared: 05-Nov-2024 Analyzed: 21-Nov-2024 16:34							
C8-C10 Aromatics	ND	2000	ug/kg							U
>C10-C12 Aromatics	ND	2000	ug/kg							U
>C12-C16 Aromatics	ND	2000	ug/kg							U
>C16-C21 Aromatics	ND	2000	ug/kg							U
>C21-C34 Aromatics	ND	2000	ug/kg							U
Surrogate: o-Terphenyl	12900		ug/kg	*15000*		*86.0*	*30-160*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMK0061 - WA EPH

Instrument: FID8 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BMK0061-BS1)				Prepared: 05-Nov-2024 Analyzed: 18-Nov-2024 12:49						
C8-C10 Aliphatics	9550	2000	ug/kg	15000		63.7	25-130			
>C10-C12 Aliphatics	11300	2000	ug/kg	15000		75.6	23-130			
>C12-C16 Aliphatics	12800	2000	ug/kg	15000		85.2	44.5-130			
>C16-C21 Aliphatics	15000	2000	ug/kg	15000		100	52-130			
>C21-C34 Aliphatics	11500	2000	ug/kg	15000		76.9	31-130			
Surrogate: 1-Chloro-octadecane	11100		ug/kg	*15000*		*73.7*	*30-160*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMK0061 - WA EPH

Instrument: FID8 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BMK0061-BS2)				Prepared: 05-Nov-2024 Analyzed: 21-Nov-2024 16:58						
>C10-C12 Aromatics	13600	2000	ug/kg	15000		90.3	20-130			
>C12-C16 Aromatics	13200	2000	ug/kg	15000		88.3	38-130			
>C16-C21 Aromatics	35800	2000	ug/kg	30000		119	51-130			
>C21-C34 Aromatics	16600	2000	ug/kg	15000		111	41-130			
Surrogate: o-Terphenyl	14400		ug/kg	*15000*		*95.7*	*30-160*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMK0061 - WA EPH

Instrument: FID8 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BMK0061-BSD1)				Prepared: 05-Nov-2024 Analyzed: 18-Nov-2024 13:14						
C8-C10 Aliphatics	10400	2000	ug/kg	15000		69.1	25-130	8.14	30	
>C10-C12 Aliphatics	13900	2000	ug/kg	15000		92.5	23-130	20.10	30	
>C12-C16 Aliphatics	14200	2000	ug/kg	15000		94.3	44.5-130	10.20	30	
>C16-C21 Aliphatics	14700	2000	ug/kg	15000		97.9	52-130	2.09	30	
>C21-C34 Aliphatics	10500	2000	ug/kg	15000		70.1	31-130	9.34	30	
Surrogate: 1-Chloro-octadecane	10900		ug/kg	*15000*		*72.6*	*30-160*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Analysis by: Analytical Resources, LLC

Washington Department of Ecology Methods - Quality Control

Batch BMK0061 - WA EPH

Instrument: FID8 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BMK0061-BSD2)				Prepared: 05-Nov-2024 Analyzed: 21-Nov-2024 17:22						
>C10-C12 Aromatics	12000	2000	ug/kg	15000		80.1	20-130	12.10	30	
>C12-C16 Aromatics	12700	2000	ug/kg	15000		84.5	38-130	4.32	30	
>C16-C21 Aromatics	33300	2000	ug/kg	30000		111	51-130	7.10	30	
>C21-C34 Aromatics	15600	2000	ug/kg	15000		104	41-130	6.02	30	
Surrogate: o-Terphenyl	13400		ug/kg	*15000*		*89.2*	*30-160*			

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Certified Analyses included in this Report

Analyte	Certifications
WA EPH in Solid	
C8-C10 Aliphatics	WADOE,DoD-ELAP,NELAP
>C10-C12 Aliphatics	WADOE,DoD-ELAP,NELAP
>C12-C16 Aliphatics	WADOE,DoD-ELAP,NELAP
>C16-C21 Aliphatics	WADOE,DoD-ELAP,NELAP
>C21-C34 Aliphatics	WADOE,DoD-ELAP,NELAP
C8-C10 Aromatics	DoD-ELAP,NELAP,WADOE
>C10-C12 Aromatics	DoD-ELAP
>C12-C16 Aromatics	DoD-ELAP
>C16-C21 Aromatics	DoD-ELAP
>C21-C34 Aromatics	DoD-ELAP
WA VPH in Solid	
C5-C6 Aliphatics	DoD-ELAP,WADOE
>C6-C8 Aliphatics	DoD-ELAP,WADOE
>C8-C10 Aliphatics	DoD-ELAP,WADOE
>C10-C12 Aliphatics	DoD-ELAP,WADOE
C8-C10 Aromatics	DoD-ELAP,WADOE
>C10-C12 Aromatics	DoD-ELAP,WADOE
>C12-C13 Aromatics	DoD-ELAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP,WADOE
Benzene	DoD-ELAP,WADOE
Toluene	DoD-ELAP,WADOE
Ethylbenzene	DoD-ELAP,WADOE
m,p-Xylene	DoD-ELAP,WADOE
o-Xylene	DoD-ELAP,WADOE
1,2,3-Trimethylbenzene	DoD-ELAP,WADOE
Naphthalene	DoD-ELAP,WADOE
1-Methylnaphthalene	DoD-ELAP,WADOE
n-Pentane	DoD-ELAP
n-Hexane	DoD-ELAP
n-Octane	DoD-ELAP

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n-Decane	DoD-ELAP
n-Dodecane	DoD-ELAP
PID: 2,5-Dibromotoluene	WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2025
WADOE	WA Dept of Ecology	C558	06/30/2025
WA-DW	Ecology - Drinking Water	C558	06/30/2025

SGS Environmental Services, Inc.	Project: 1246232	
200 W. Potter Drive	Project Number: [none]	**Reported:**
Anchorage AK, 99518	Project Manager: Justin Nelson	23-Nov-2024 09:49

Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.